

# TA-AV590

## SERVICE MANUAL

AEP Mode

UK Mode

E Mode

Chinese Mode

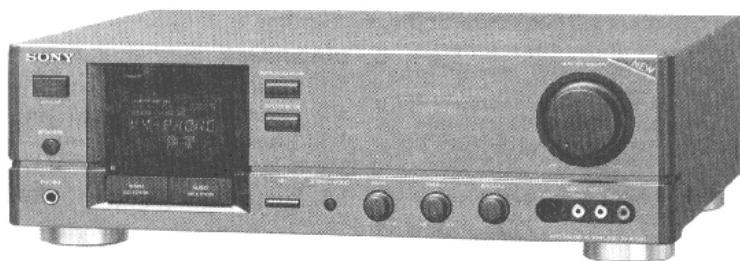


Photo : GRAY

### SPECIFICATIONS

#### Amplifier section

Items	Condition	Data
Continuous RMS power output	4 ohms, DIN 1 kHz	Front: 70 W + 70 W Center: 70 W Rear: 30 W + 30 W
	4 ohms, 20 Hz-20 kHz	Front: 55 W + 55 W
Total harmonic distortion	8 ohms, at 10 W output	Front: 0.03 %

#### Input

	Input jack	Sensitivity	Impedance
Audio	PHONO	2 mV	50 kilohms
	TUNER, AUX, TAPE VIDEO 1, 2, 3, 4, LD	150 mV	
	CD	200 mV	
Video	VIDEO 1, 2, 3, 4, LD (phono jack)	1 Vp-p	75 ohms
	S VIDEO VIDEO 1, 4, LD	Luminance (Y) 1 Vp-p Chrominance (C) 0.286 Vp-p	75 ohms

#### Output

	Output jack	Sensitivity	Impedance
Audio	TAPE, VIDEO 1, 2	150 mV	470 ohms
	PHONES	3 mW (8 ohms)	Applied to low and high impedance headphones
Video	FRONT/CENTER/MONO OUT	1.5 V	2 kilohms
	VIDEO 1, 2, MONITOR (phono jack)	1 Vp-p	75 ohms
Video	S VIDEO VIDEO 1, MONITOR	Luminance (Y) 1 Vp-p Chrominance (C) 0.286 Vp-p	75 ohms

#### Tone control

BASS: 100 Hz,  $\pm 10$  dB

TREBLE: 10 kHz,  $\pm 10$  dB

Center/rear output level:

+10 dB - -15 dB

Delay time: 20 ms fixed

Input balance: Auto

#### Surround

- Continued on page 2

**INTEGRATED AV AMPLIFIER**  
**SONY**



**General**

Power requirements

AEP, German, Chinese, Singapore model :

220~230V AC, 50/60Hz

UK model :

230V AC, 50/60Hz

E model :

120, 220 or 240 V AC adjustable, 50/60Hz

280 W

Power consumption

AC outlet (except for UK model)

One Switched, less than 100 W

Dimensions

Approx. 430 x 135 x 360 mm

(w/h/d)

(17 x 5 3/4 x 14 1/4 inches)

Mass

Approx. 10 kg (22 lb 1 oz)

Supplied accessories

Remote commander RM-P590 (1)

Sony batteries SUM-3 (NS) (2)

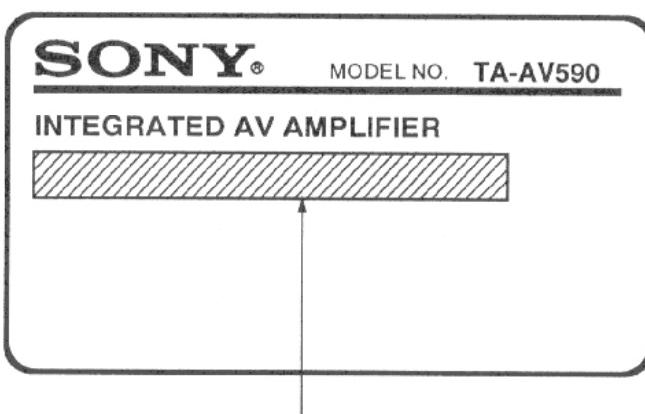
Design and specifications are subject to change without notice.

**SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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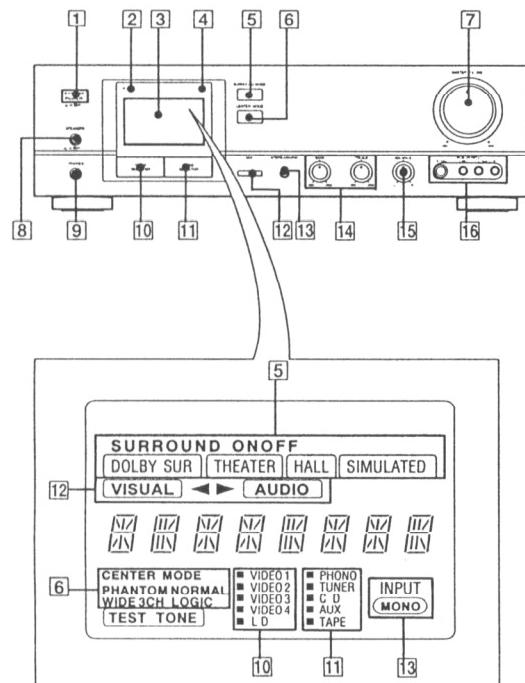
**MODEL IDENTIFICATION***(Specification Label)*

UK model : AC 230V~50/60Hz  
 AEP, German, Chinese,  
 Singapore model : AC 220~230V~50/60Hz  
 E model : AC 120, 220, 240V~50/60Hz

## SECTION 1 GENERAL

This section is extracted from instruction manual.

**A**



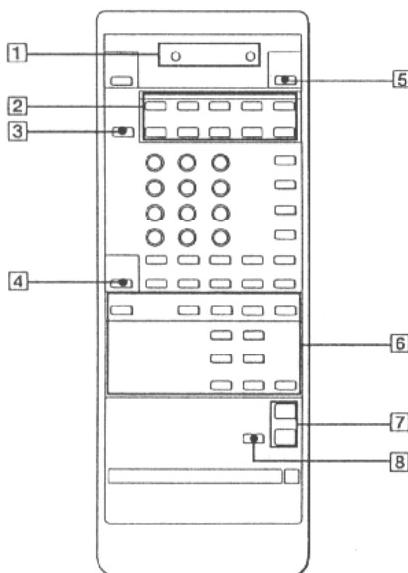
### Identifying the Parts and Controls

#### Front Panel and Display **A**

- 1 **SYSTEM POWER switch**  
Press to turn on/off the unit.
- 2 **STANDBY indicator**  
When this indicator lights up, you can turn on this unit with the remote commander.
- 3 **Display**
- 4 **Remote sensor**
- 5 **SURROUND MODE button** (Page 48)  
Press to change the surround mode.  
Each time this button is pressed, the surround mode changes as follows:  
  
SURROUND OFF → [DOLBY SUR]  
↓  
[SIMULATED] → [HALL] → [THEATER]
- 6 **CENTER MODE button** (Page 48)  
In the DOLBY SUR or THEATER mode, select the CENTER MODE according to the speaker placement.  
Each time this button is pressed, the CENTER MODE changes as follows:  
  
PHANTOM → NORMAL  
↑ ↓  
3 CH LOGIC → WIDE
- 7 **MASTER VOLUME control** (Page 34)  
Adjusts the sound volume. To increase the volume, turn the control clockwise.  
To decrease the volume, turn the control counterclockwise.  
Adjusts the level of the sound output from the FRONT SPEAKERS, REAR SPEAKERS and CENTER SPEAKER terminals and the FRONT/CENTER/MONO OUT and PHONES jacks at the same time.
- 8 **SPEAKERS switch** (Page 36)  
Turn ON and OFF the sounds output from the FRONT SPEAKERS, REAR SPEAKERS and CENTER SPEAKER terminals and the FRONT/CENTER/MONO OUT jacks.
- 9 **PHONES jack**  
Accepts the stereo phone plug of headphones. The jack outputs the sound of front speakers only. To listen to the program source only with the headphones, set the SPEAKERS switch to OFF.
- 10 **VIDEO SELECTOR button**  
Selects the video program source.
- 11 **AUDIO SELECTOR button**  
Selects the audio program source.
- 12 **MIX button** (Page 38)  
Press to combine a visual source and an audio source.  
Each time this button is pressed, the display changes as follows:  
VISUAL → AUDIO → off
- 13 **STEREO/MONO switch** (Page 16)  
When using the monaural equipment, connect to either L or R jack of the amplifier and set STEREO/MONO switch to MONO.  
Same monaural signals are input on both L and R jacks and the monaural signal is also output from the FRONT OUT jacks.
- 14 **BASS/TREBLE controls** (Page 34)  
Adjust the BASS and TREBLE sound. Normally, set to the center position.
- 15 **BALANCE control** (Page 34)  
Adjusts balance of the front speaker sound. Normally set to the center position.
- 16 **VIDEO 4 INPUT jacks** (Page 16)  
Use when connecting the video camera, etc.

## Identifying the Parts and Controls

**B**



### Remote Commander **B**

**① LEARN button and indicator**  
Stores functions of other remote commanders emitting infrared rays.

**② SYSTEM CONTROL/FUNCTION buttons** (Page 52, 58)  
TAPE/AUX/CD/TUNER/PHONO/  
VIDEO 1/VIDEO 2/VIDEO 3/VIDEO  
4/LD: Selects the each program source.

**③ MIX button** (page 38)  
Combines a visual source and audio source.

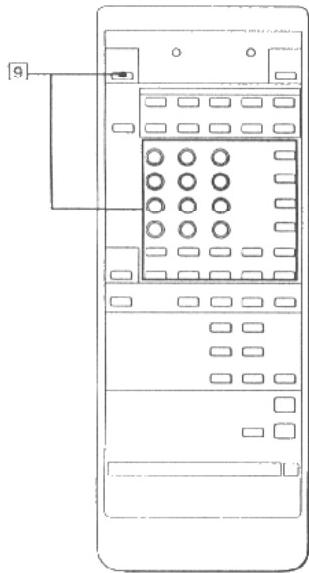
**④ BACKGROUND button** (Page 56)  
Operate other components temporarily while listening to or watching a programme.

**⑤ SYSTEM OFF button** (page 54)  
Turns off this unit and the components connected to the SWITCHED AC OUTLET.  
When the unit is turned off by pressing this button, the STANDBY indicator lights up to show that the unit is in the STANDBY mode.

**⑥ Surround buttons**  
SURROUND ON/OFF: Turns on/off the surround mode.  
DOLBY SURROUND, THEATER, HALL, SIMULATED: Select the each surround mode.  
EFFECT: Adjust the overall presence of the sound field.  
TEST TONE: Generates a test tone signal that is sent in succession to each speaker.  
CENTER LEVEL +/−: Adjust the volume of center speaker.  
REAR LEVEL +/−: Adjust the volume of rear speakers.

**⑦ MASTER VOL +/- buttons**  
Adjust the level of the sound output from the FRONT SPEAKERS, REAR SPEAKERS and CENTER SPEAKER terminals and the FRONT/CENTER/MONO OUT and PHONES jacks at the same time.

**⑧ MUTING button**  
Mutes the sound.



## Identifying the Parts and Controls

### ⑨ Operation buttons

The each function of the operation button changes according as what component is being selected with the SYSTEM CONTROL/FUNCTION buttons.

Button	Operates	Function
0-9	Tuner	Selects preset numbers.
	CD player/ MD deck/ LD player	Selects track numbers. 0 selects track 10.
	TV/VCR	Selects channel numbers.
>10	CD player/ Tape deck/ LD player/ MD deck	Selects track numbers over 10.
CH/ PRESET +/-	Tuner	Scans and selects preset stations.
	TV/VCR	Selects preset channels.
D. SKIP	CD player	Skips discs (CD player with multi-disc changer only.)
◀◀/▶▶	CD player	Searches tracks (forward or backward).
	Tape deck/ MD deck/ VCR/LD player	Fastforwards or rewinds or searches.
◀◀/▶▶	CD player/ MD deck/ LD player	Skips tracks.
	VCR	Searches index.
II	CD player/ Tape deck/ MD deck/ LD player/ VCR	Pauses play or record. (Also starts recording with components in record standby.)
▶	CD player/ Tape deck/ MD deck/ LD player/ VCR	Starts play.
■	CD player/ Tape deck/ MD deck/ LD player/ VCR	Stops play.
◀	Tape deck	Starts play on the reverse side.
●	Tape deck/ MD deck	Sets tape decks to the record standby mode.
● + ▶	Tape deck/ VCR	Starts recording when pressed with (▶ or ▶ on tape deck).

Button	Operates	Function
RMS DIRECTION	Tape deck	Selects tape direction (for tape decks with the RMS* function.)
RMS CLEAR	Tape deck	Clears RMS* program (for tape decks with the RMS function.)
RMS/ START	Tape deck	Programs tracks (tape deck with the RMS* function only).
ENTER	TV/VCR	Changes channels when used with 0-9.
TV/ VIDEO	TV/VCR	Selects input signal: TV input or video input.
VISUAL POWER	TV/VCR/ LD player	Turns on or off the power.
TV CONTROL ON	TV	Turns on the TV, switches the input to "TV," and sets the remote to operate the TV.
-/-	TV	Selects the channel entry mode, either one or two digit.
SUB CH +/-	TV	Selects preset channels for the small picture.**
POSI	TV	Changes the position of the small picture.**
SWAP	TV	Swaps the small and the large picture.**
P IN P	TV	Activates the picture-in-picture function.*
JUMP	TV	Jumps back and forth between the previous and current channels.
ANT TV/ VTR	VCR	Selects output signal from the antenna terminal: TV signal or VCR program.

\* RMS: Random Music Sensor

\*\* Only for Sony TVs with the picture-in-picture function

## SECTION 2

### EXPLANATION OF IC TERMINALS

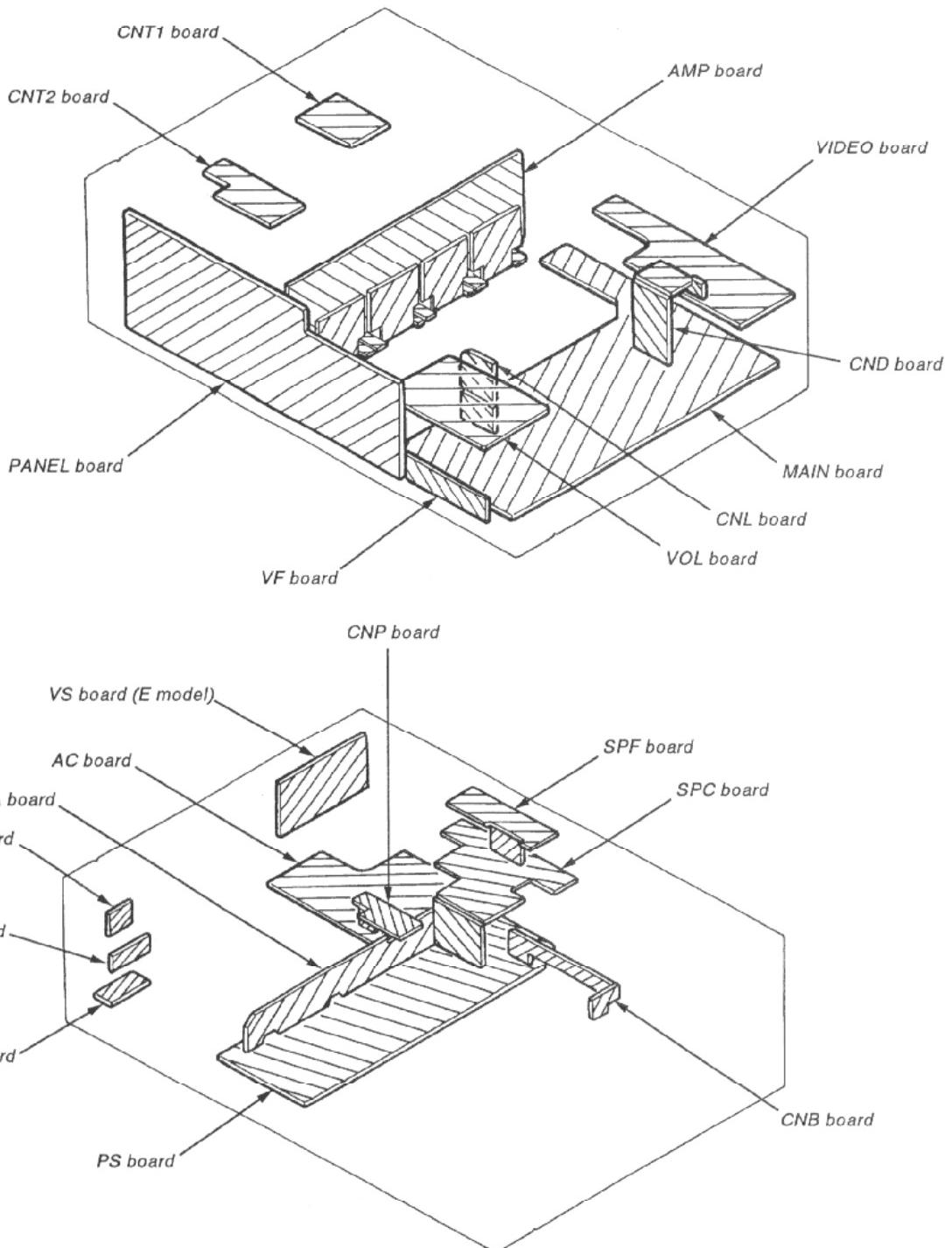
**IC801 ( μ PD7521AGF-589-3BE)**

Pin No.	Pin name	I/O	Description
1	RESET	I	System set input terminal.
2	11G	O	Fluorescent indicator tube drive.
3	10G	O	Fluorescent indicator tube drive.
4	9G	O	Fluorescent indicator tube drive.
5	8G	O	Fluorescent indicator tube drive.
6	7G	O	Fluorescent indicator tube drive.
7	6G	O	Fluorescent indicator tube drive.
8	5G	O	Fluorescent indicator tube drive.
9	4G	O	Fluorescent indicator tube drive.
10	3G	O	Fluorescent indicator tube drive.
11	2G	O	Fluorescent indicator tube drive.
12	1G	O	Fluorescent indicator tube drive.
13	NC	-	Not used. (OPEN)
14	NC	-	Not used. (OPEN)
15	NC	-	Not used. (OPEN)
16	P12	O	Fluorescent indicator tube drive.
17	P11	O	Fluorescent indicator tube drive.
18	- 30	-	Fluorescent indicator tube drive - 30V power supply.
19	- 4	-	Fluorescent indicator tube drive - 4V power supply.
20	P10	O	Fluorescent indicator tube drive.
21	P9	O	Fluorescent indicator tube drive.
22	P8	O	Fluorescent indicator tube drive.
23	P7	O	Fluorescent indicator tube drive.
24	P6	O	Fluorescent indicator tube drive.
25	P5	O	Fluorescent indicator tube drive.
26	VDD	-	Power supply. (+5V)
27	P4	O	Fluorescent indicator tube drive.
28	P3	O	Fluorescent indicator tube drive.
29	P2	O	Fluorescent indicator tube drive.
30	P1	O	Fluorescent indicator tube drive.
31	STOP	I	Power break detection input terminal.
32	FCK	O	Data transfer clock output to audio-video function switch.
33	FDT	O	Serial data output to audio-video function switch.
34	P-SW	I	Power SW ON/OFF detection.
35	SIRCS	I	Remote control receive detection.
36	KEY	I	Key matrix input terminal.
37	PROTECT	I	Speaker output protection detection input.
38	SWP	I	Power SW input detection.
39	VA	O	Video function switch control terminal.
40	VB	O	Video function switch control terminal.

Pin No.	Pin name	I/O	Description
41	VE	O	Video function switch control terminal.
42	INH	O	Video 1 picture output loop cut control terminal.
43	NC	-	Not used. (OPEN)
44	RYS	O	Surround speaker output ON/OFF control.
45	RYC	O	Center speaker output ON/OFF control.
46	RYF	O	Front speaker output ON/OFF control.
47	SCE	O	Data latch output to surround processor.
48	SCK	O	Digital transfer clock output to surround processor.
49	SDT	O	Serial data output to surround processor.
50	MON	O	STEREO/MONO control terminal.
51	NC	-	Not used. (OPEN)
52	NC	-	Not used. (OPEN)
53	FCE	O	Data latch output to audio-video function switch
54	NC	-	Not used. (OPEN)
55	NC	-	Not used. (OPEN)
56	X1	I	Main system clock terminal. (4.19MHz)
57	X2	I	Main system clock terminal. (4.19MHz)
58	Vss	-	Power supply terminal. (GND)
59	XT1	I	Subsystem clock terminal. (Not used)
60	XT2	I	Subsystem clock terminal. (Not used)
61	RY-P	O	Power ON/OFF relay drive terminal.
62	MUT	O	Mute control terminal.
63	VL -	O	Volume motor control terminal. (DOWN)
64	VL +	O	Volume motor control terminal. (UP)

## SECTION 3 DIAGRAMS

### 3-1. CIRCUIT BOARDS LOCATION



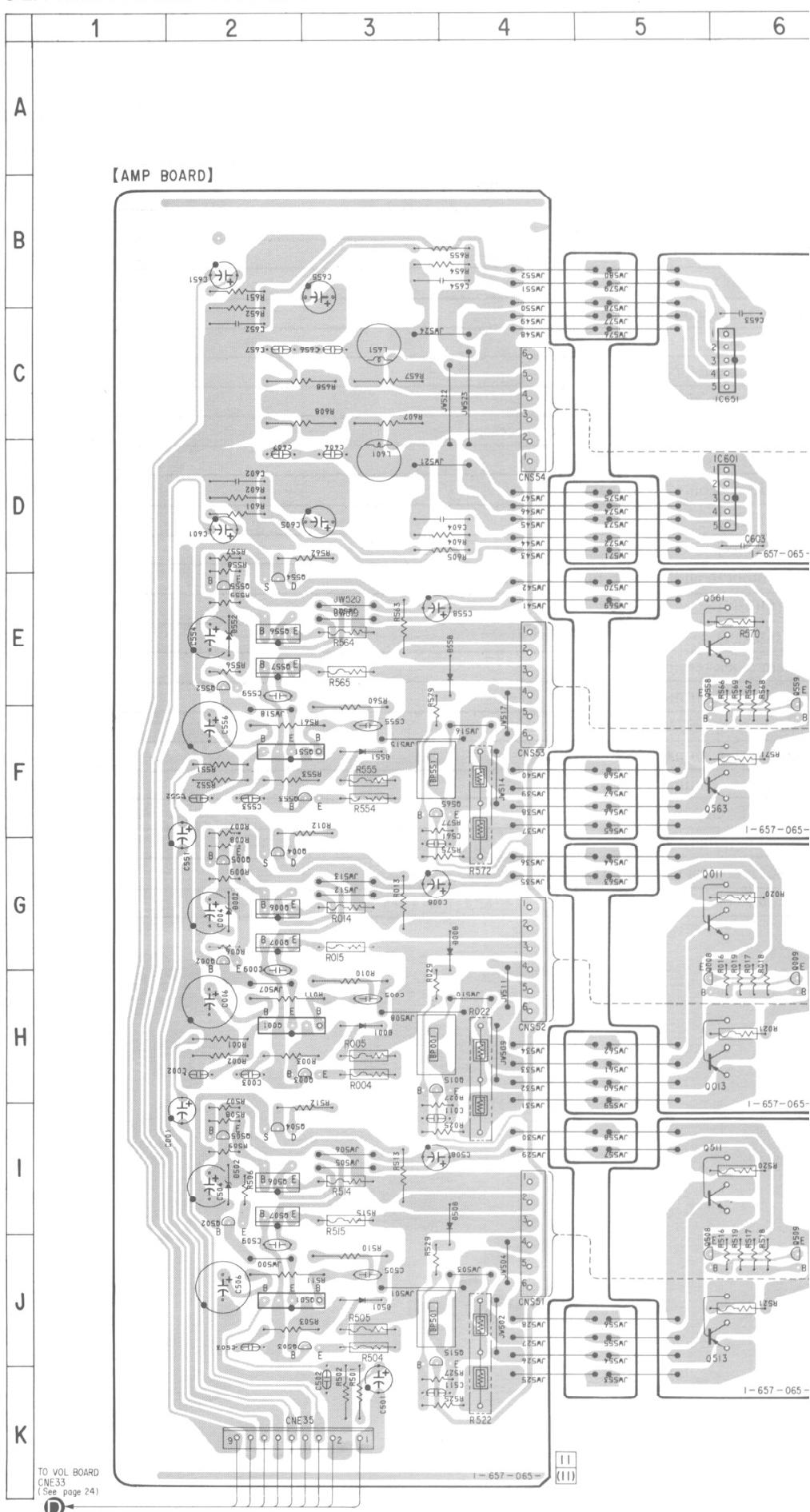
### 3-2. PRINTED WIRING BOARDS-1

#### • SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D001	H - 3	Q006	G - 2
D002	G - 2	Q007	G - 2
D008	G - 4	Q008	H - 5
D501	J - 3	Q009	H - 6
D502	I - 2	Q011	G - 5
D508	J - 4	Q013	H - 5
D551	F - 3	Q015	H - 3
D552	E - 2	Q501	J - 2
D558	E - 4	Q502	I - 2
D701	C - 12	Q503	J - 2
D702	C - 12	Q504	I - 2
D703	D - 12	Q505	I - 2
D704	D - 12	Q506	I - 2
D710	H - 12	Q507	I - 2
D711	G - 12	Q508	J - 5
D712	F - 9	Q509	J - 6
D717	H - 10	Q511	I - 5
D720	I - 12	Q513	J - 5
D721	G - 12	Q515	J - 3
D722	F - 9	Q551	F - 2
D725	I - 12	Q552	E - 2
D726	H - 12	Q553	F - 2
D727	D - 10	Q554	E - 2
D901	H - 24	Q555	E - 2
D902	I - 24	Q556	E - 2
D903	I - 24	Q557	E - 2
D904	I - 25	Q558	E - 5
D905	I - 25	Q559	E - 6
D906	I - 25	Q561	E - 6
D907	I - 24	Q536	F - 5
D908	I - 23	Q565	F - 4
D909	I - 23	Q701	C - 12
D910	I - 22	Q702	C - 12
D920	J - 9	Q703	C - 12
D921	K - 10	Q710	G - 12
D922	K - 9	Q715	H - 12
D923	B - 10	Q720	G - 12
D924	B - 10	Q725	H - 12
D925	C - 9	Q901	H - 24
D927	J - 9	Q902	J - 23
D929	K - 9	Q903	I - 22
		Q904	I - 23
		Q905	I - 22
IC601	D - 6	Q906	I - 21
IC651	C - 6	Q921	K - 9
Q001	H - 2		
Q002	G - 2		
Q003	H - 2		
Q004	G - 2		
Q005	G - 2		

#### Note:

- — : parts extracted from the component side.
- ●●●● : Pattern on the side which is seen.
- Abbreviation
  - G : German
  - SP : Singapore
  - CH : Chinese



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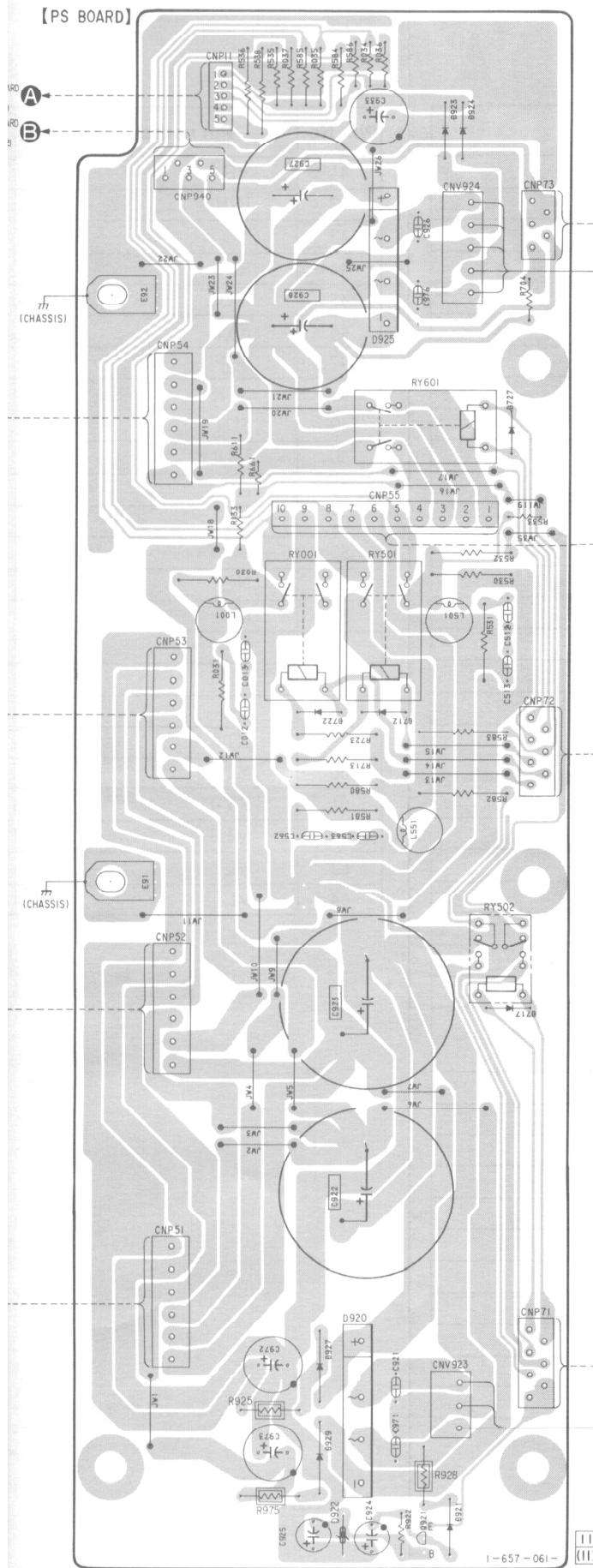
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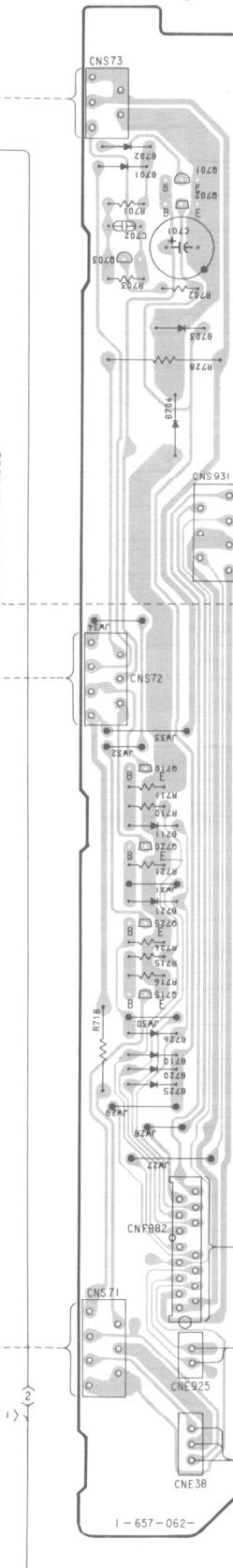
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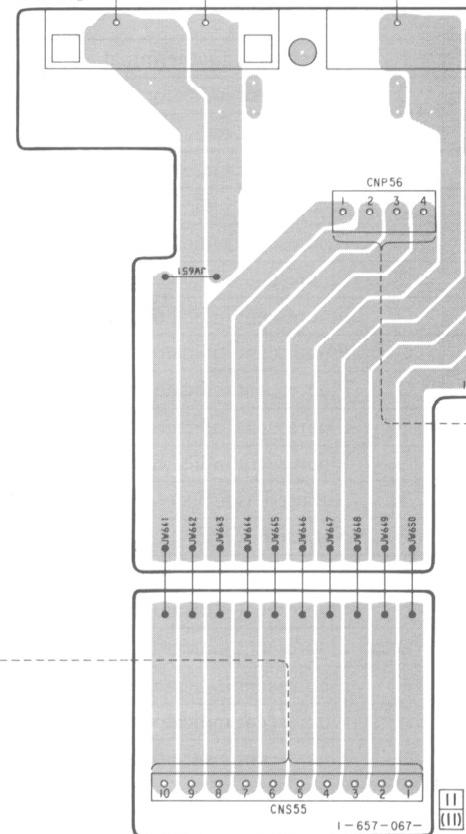
【PS BOARD】



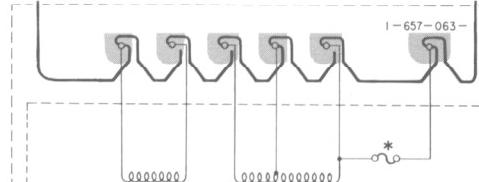
【CNA BOARD】



【SPC BOARD】



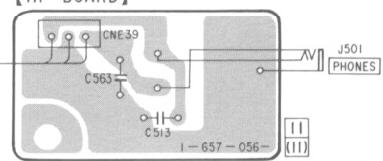
## E MODE

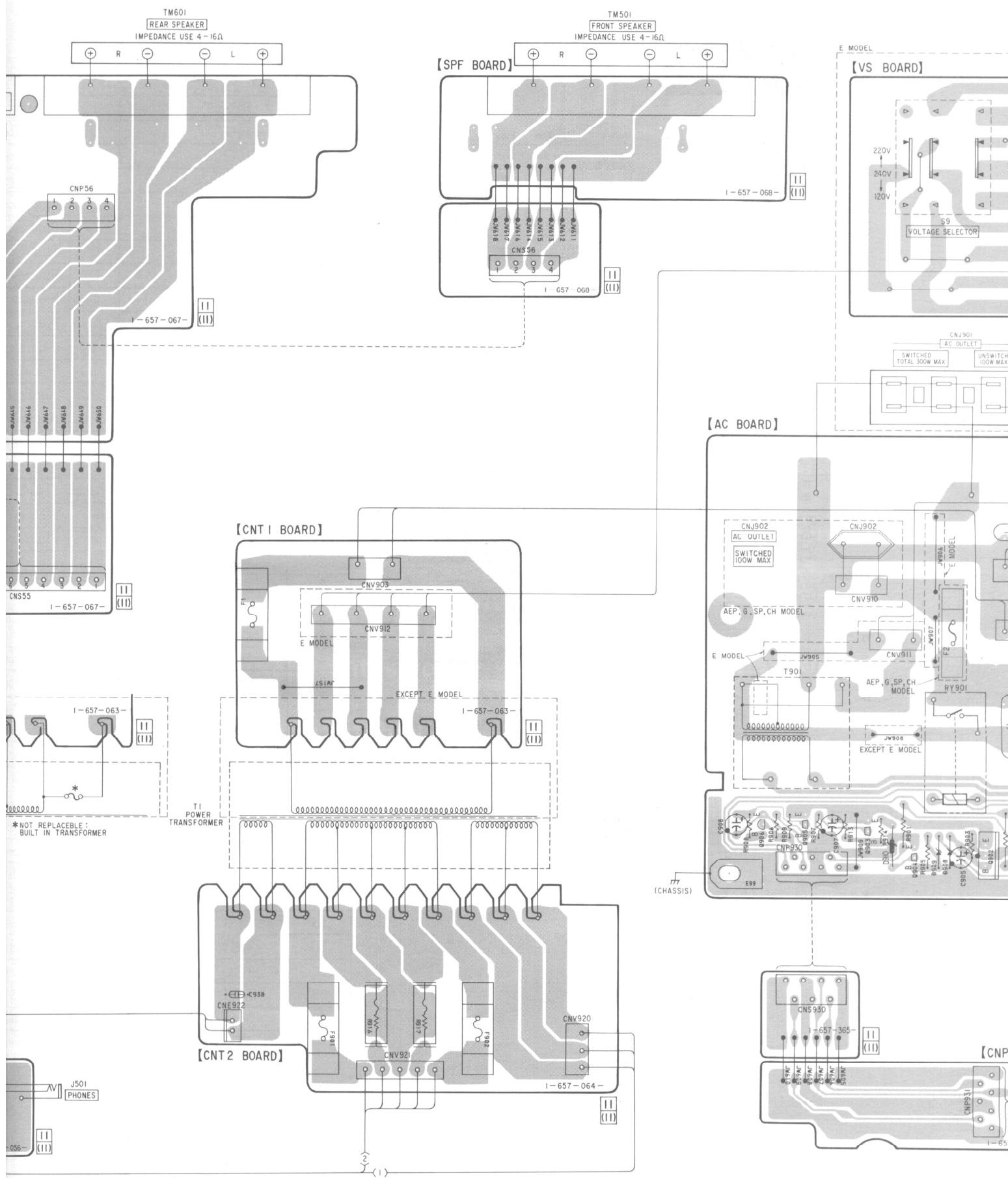


\* NOT REPLACEABLE:  
BUILT IN TRANSFORMER

 TO PANEL BOARD  
CNFA82  
(See page 23)

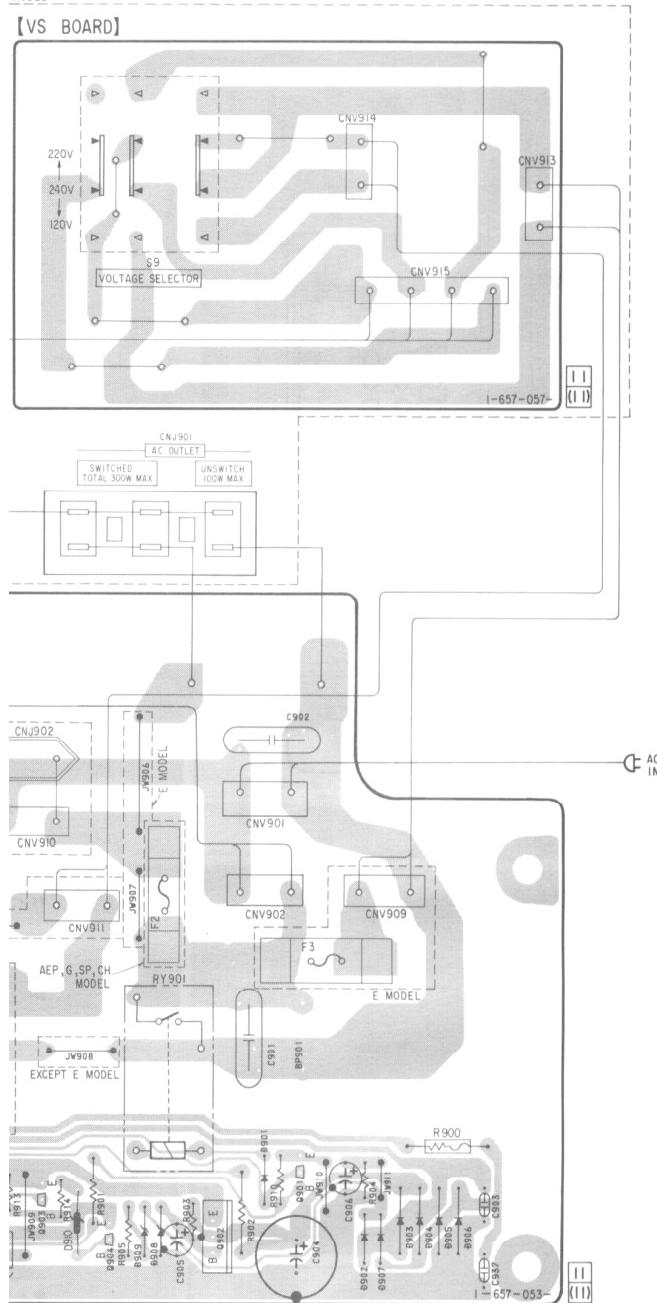
【HP BOARD】





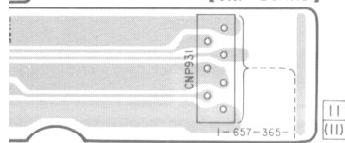
MODEL

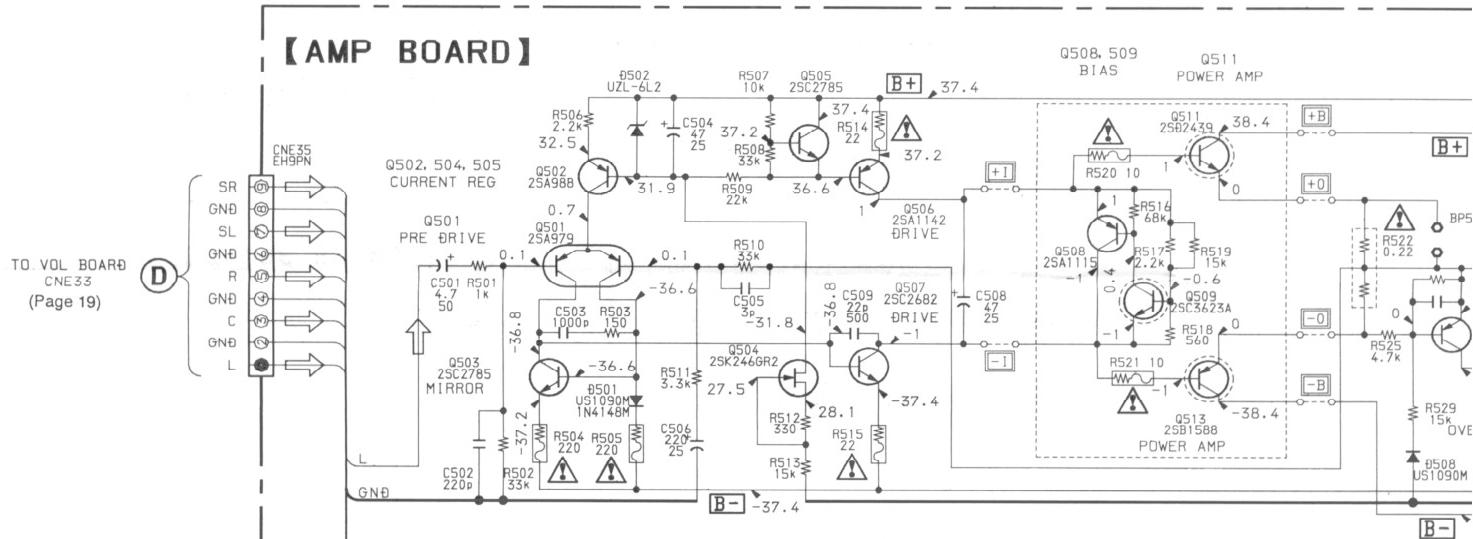
## 【VS BOARD】

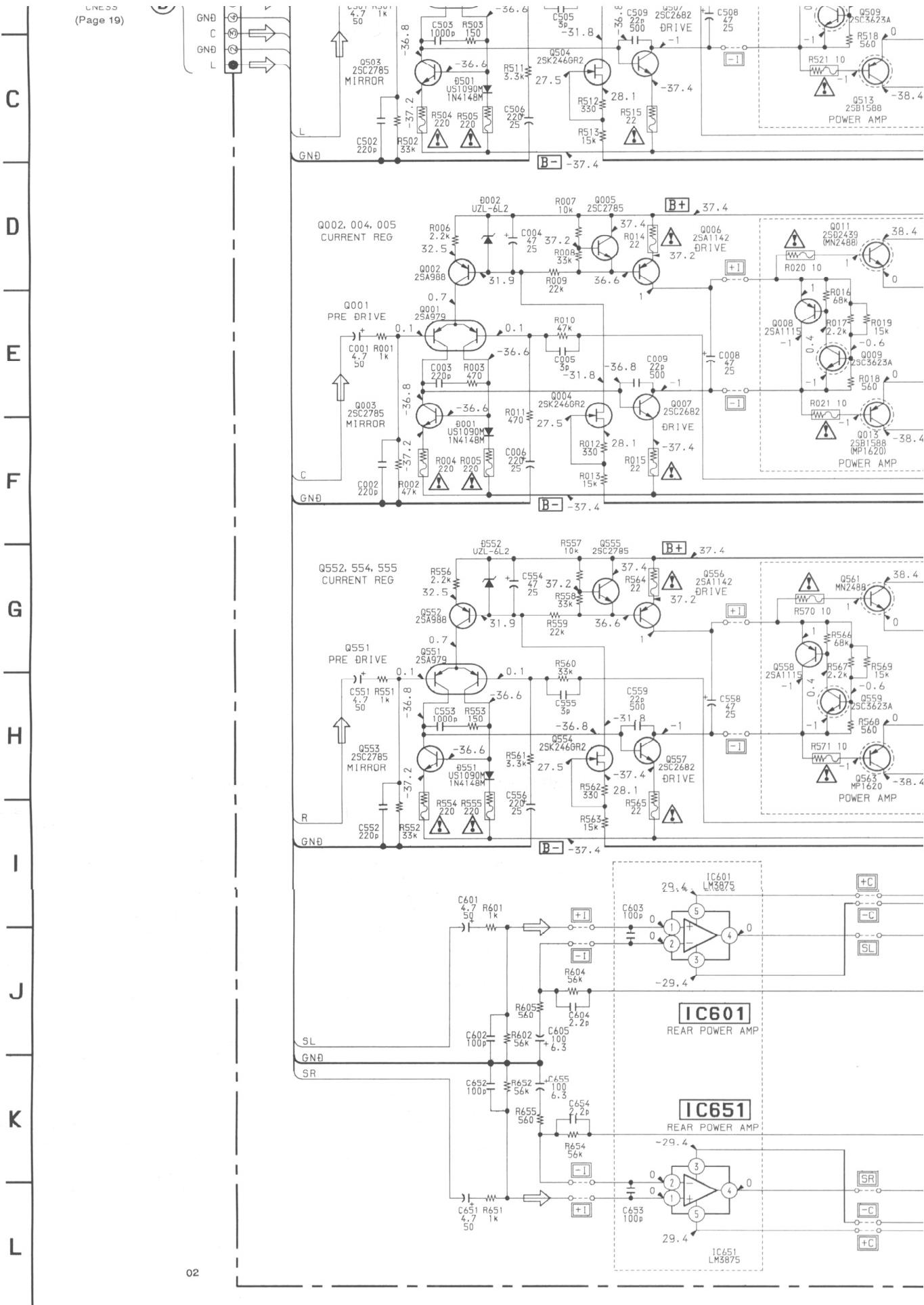


P  
I  
Q  
R

## 【CNP BOARD】







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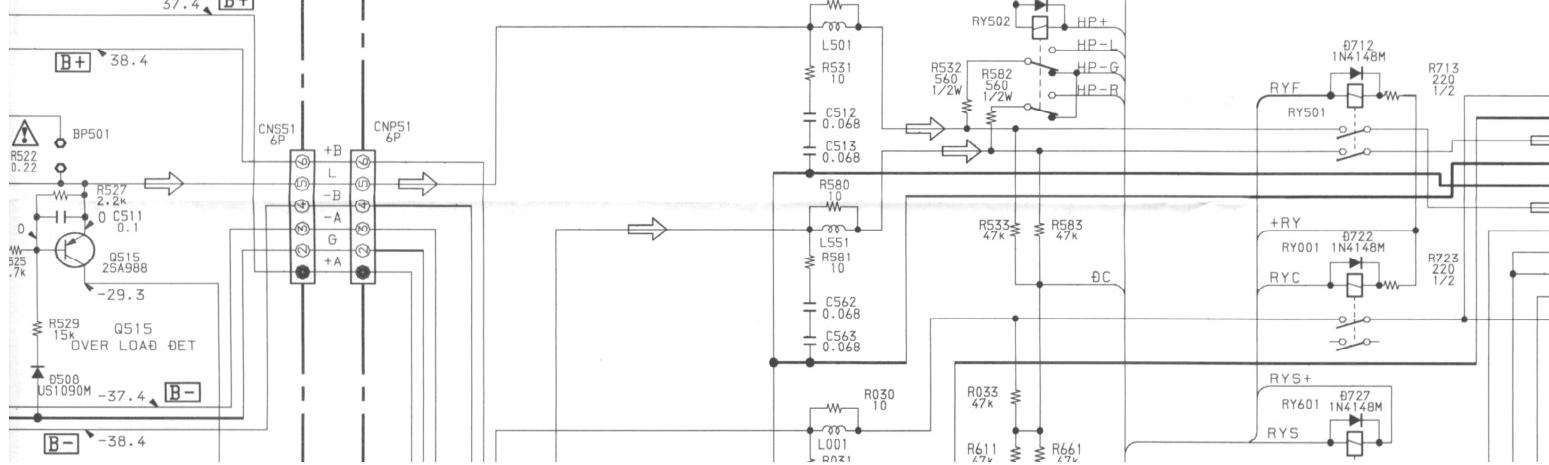
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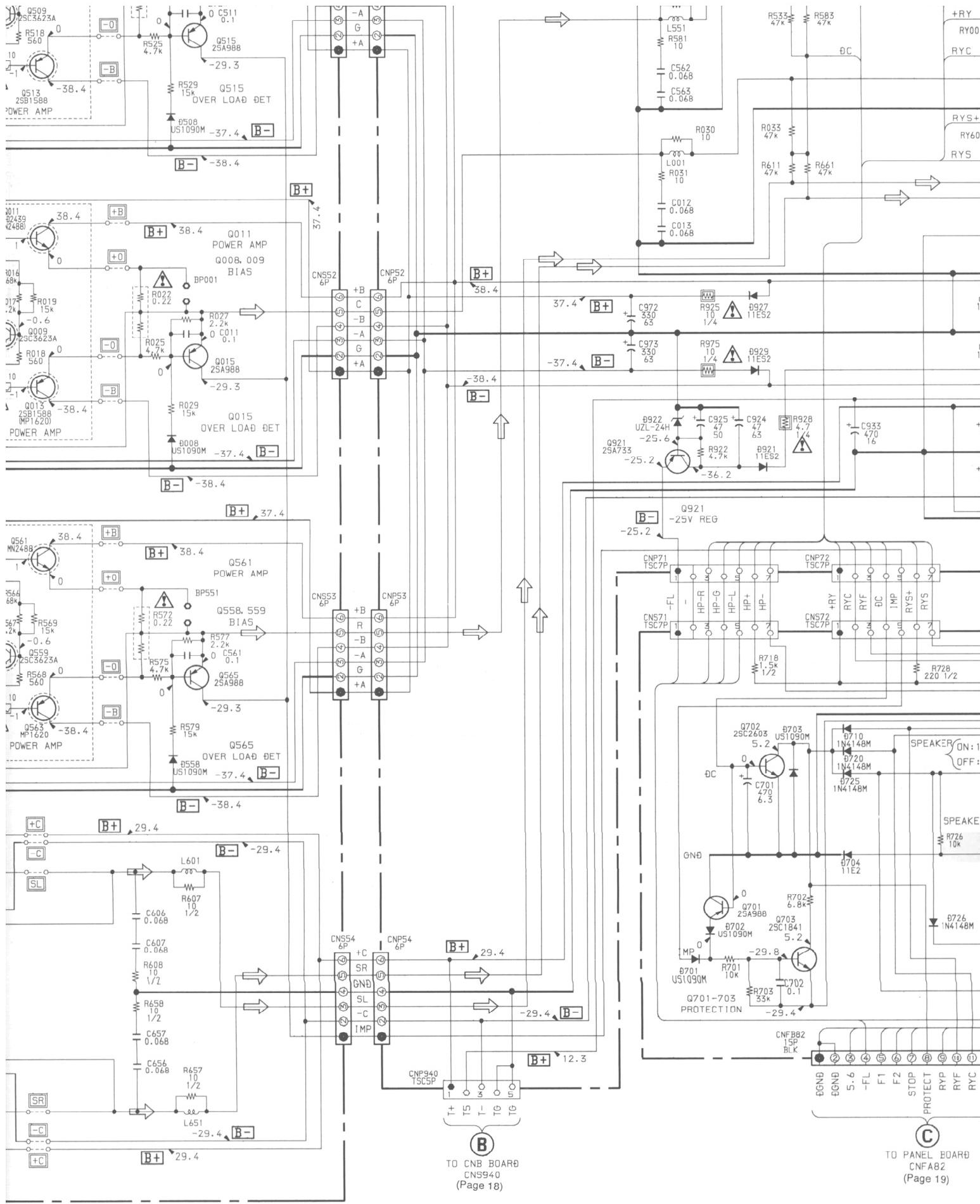
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## [PS BOARD]





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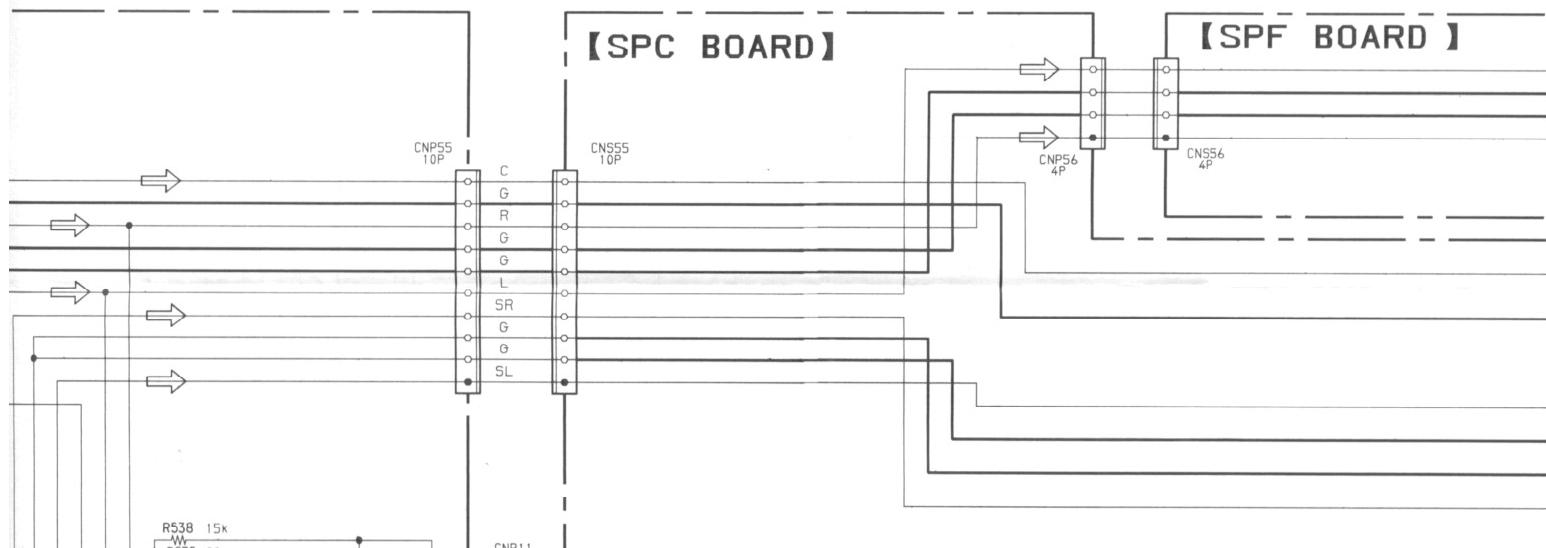
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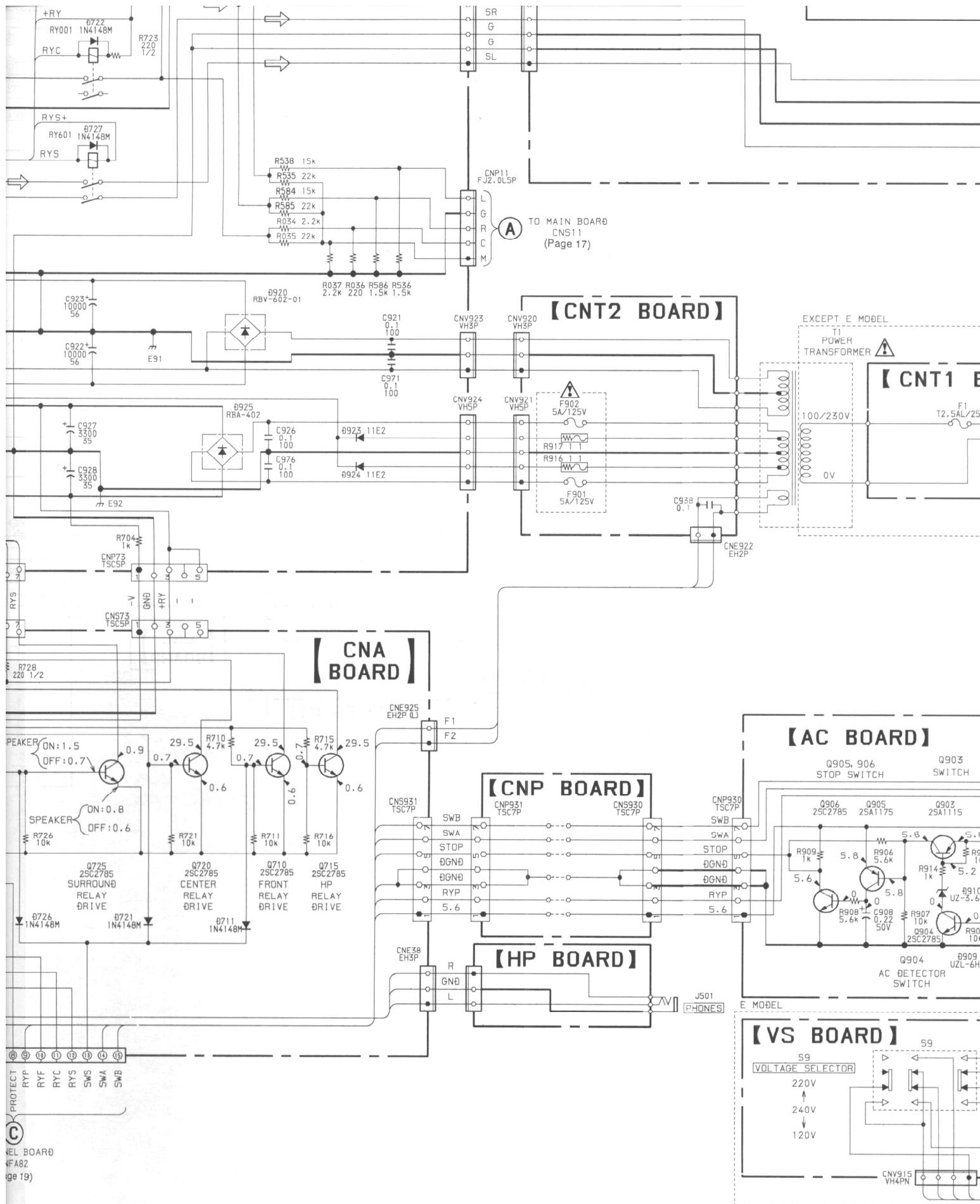
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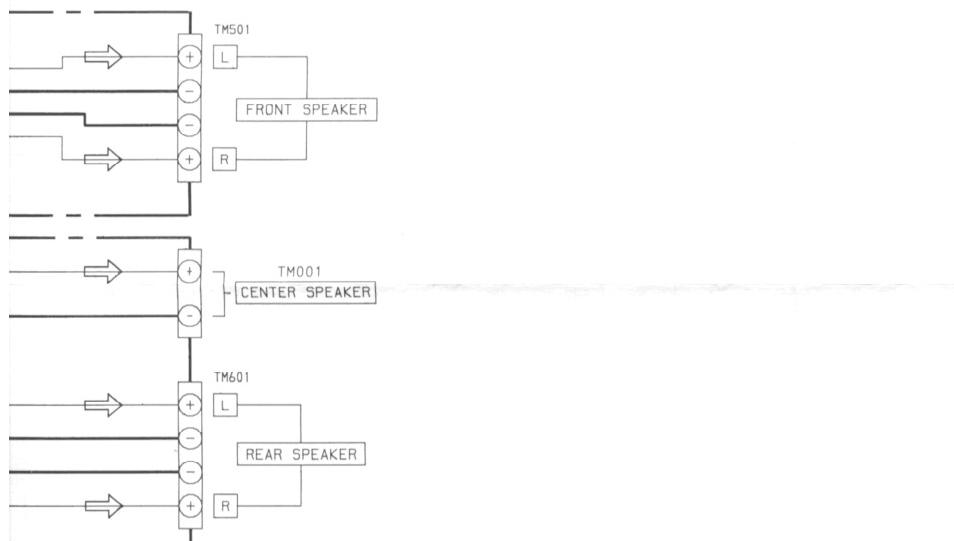
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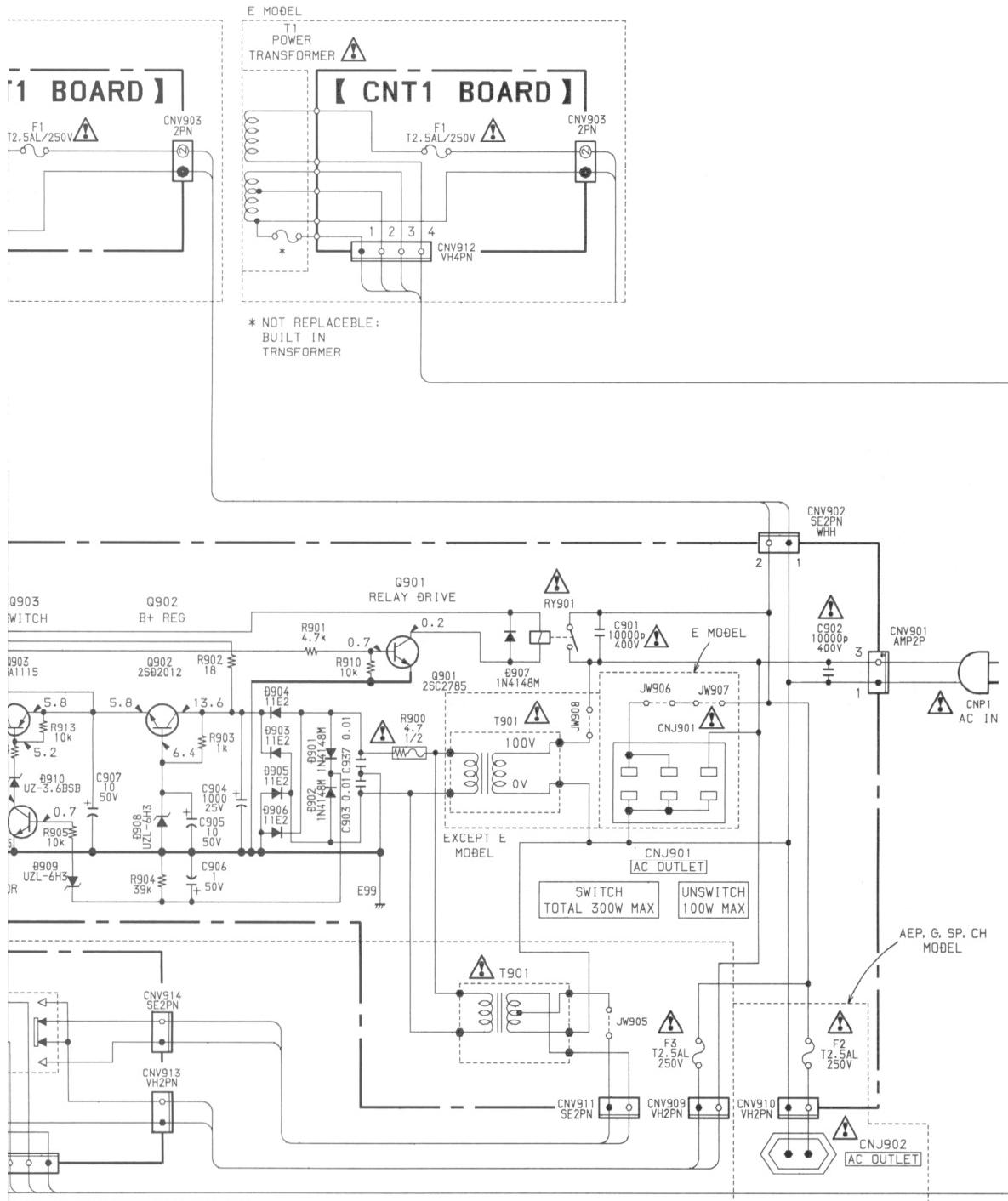
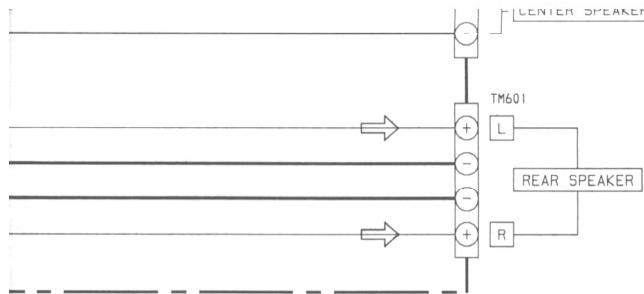
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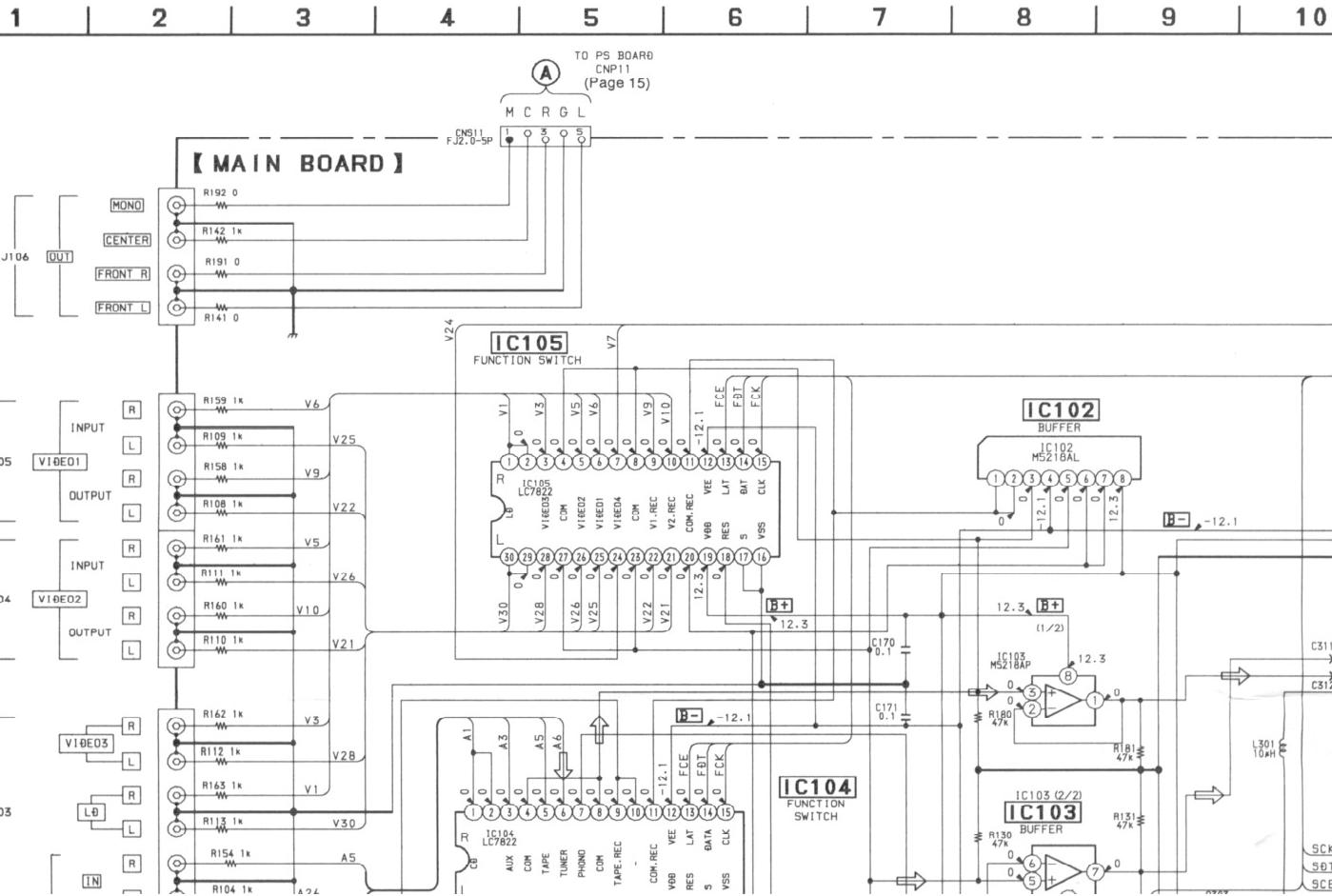
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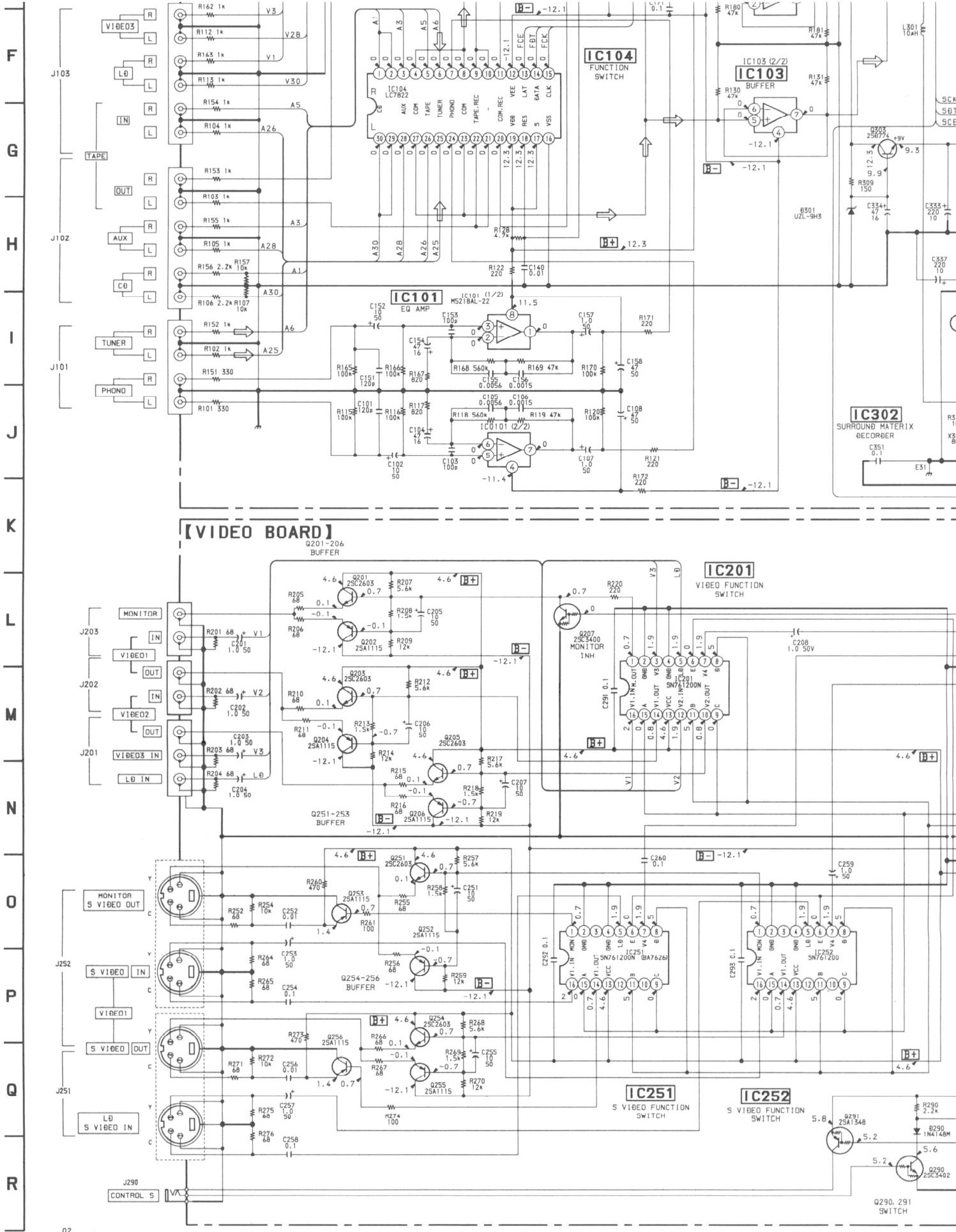
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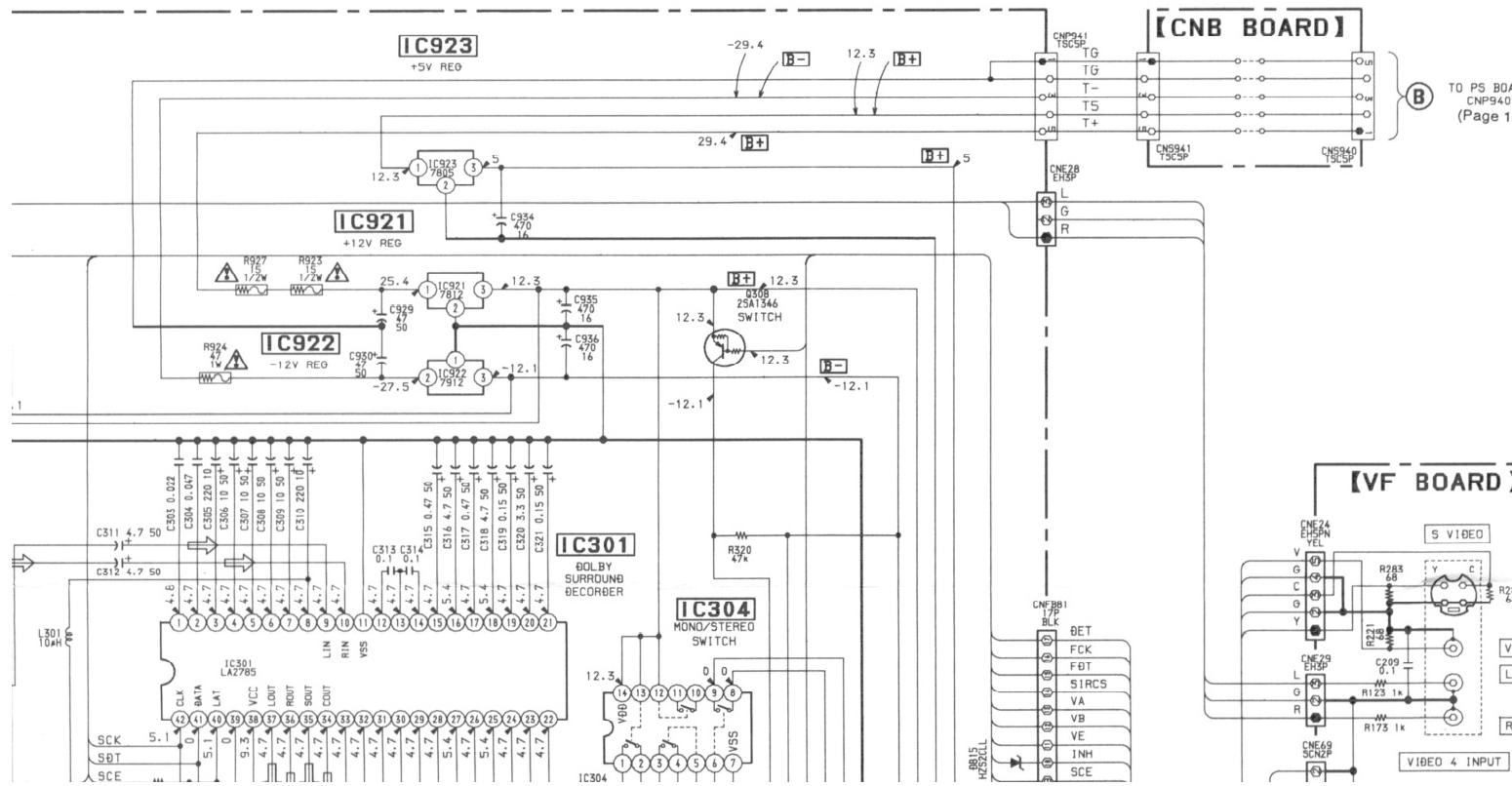


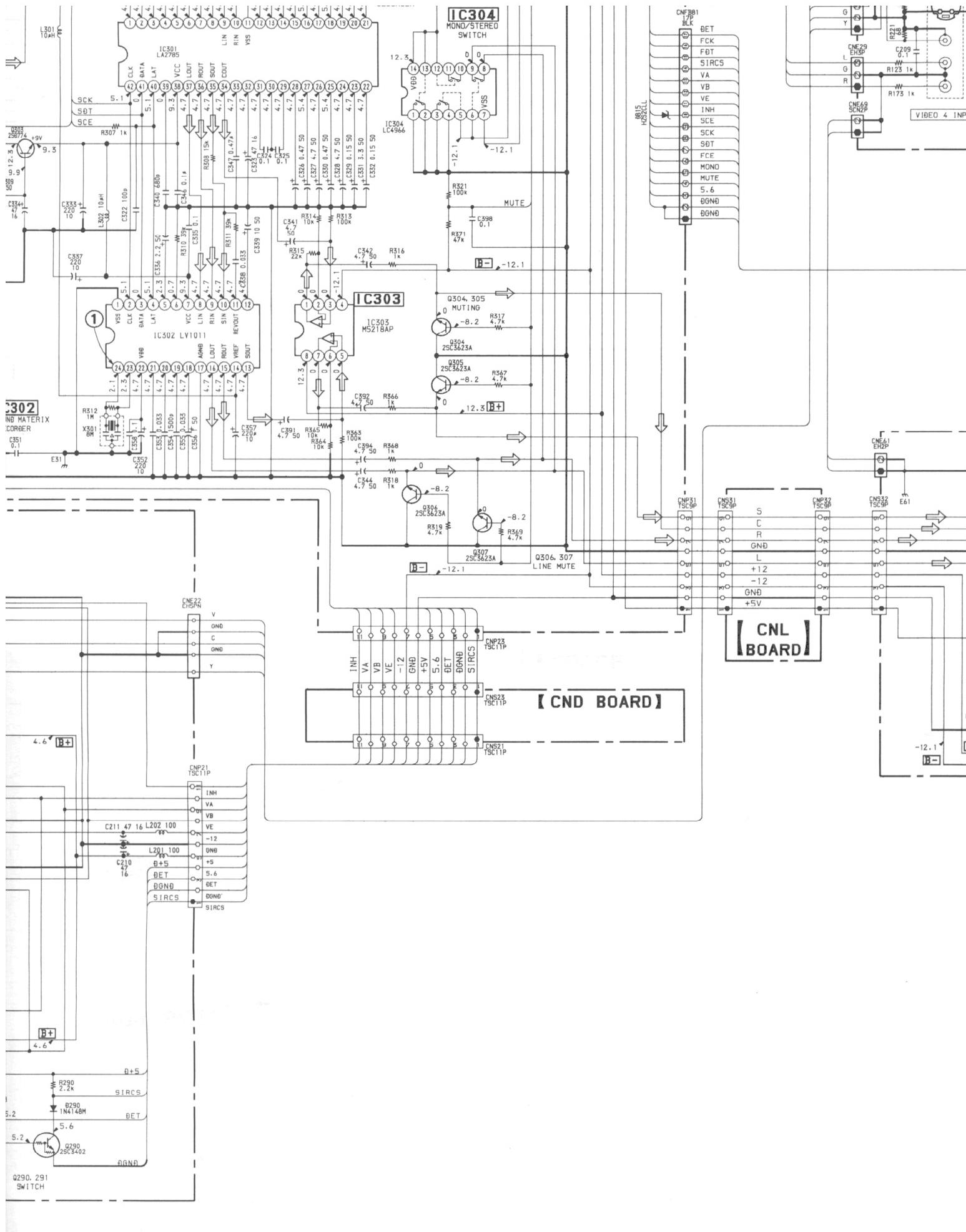
**3-4. SCHEMATIC DIAGRAM-2**

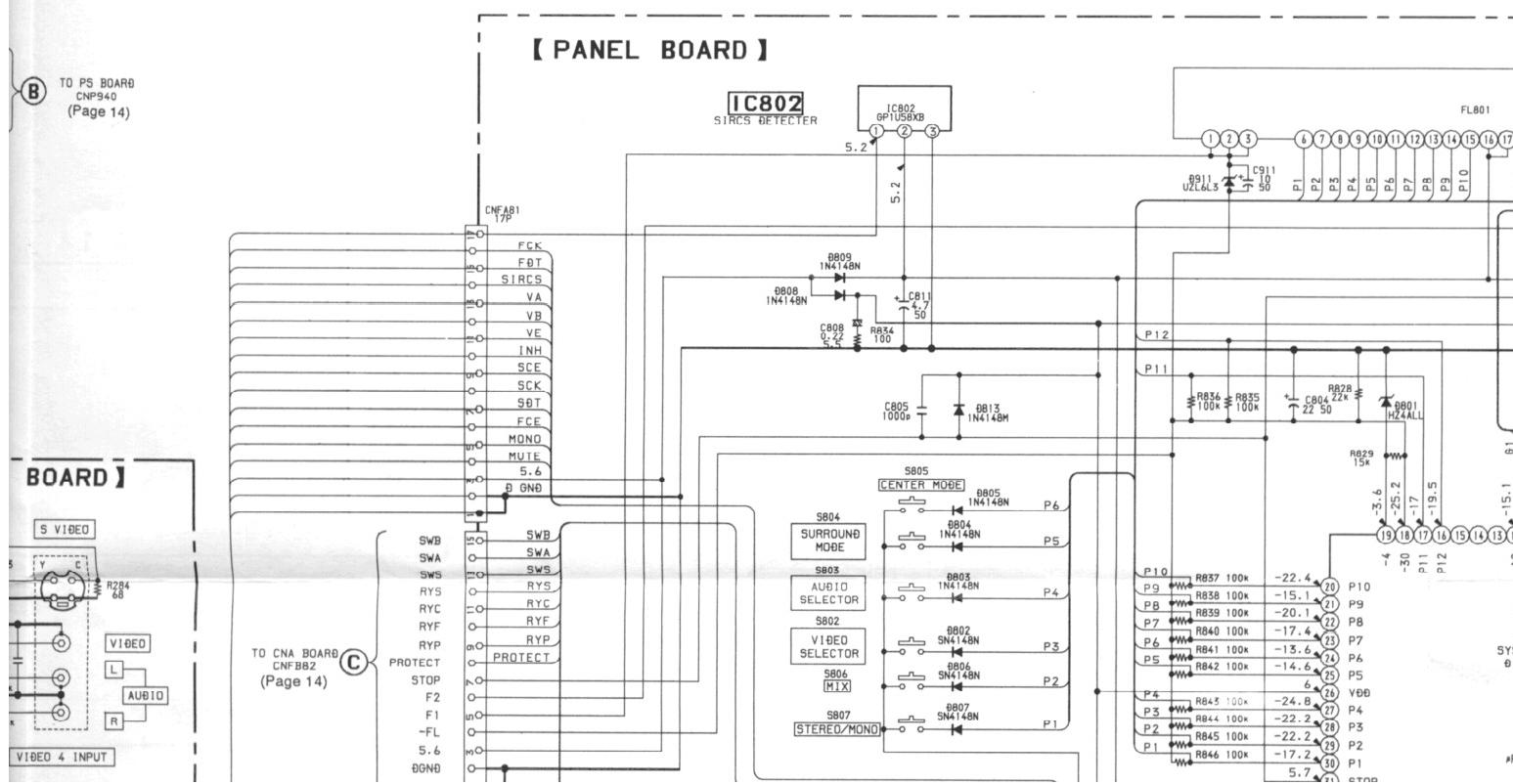
● Refer to page 25 for IC Block Diagrams.

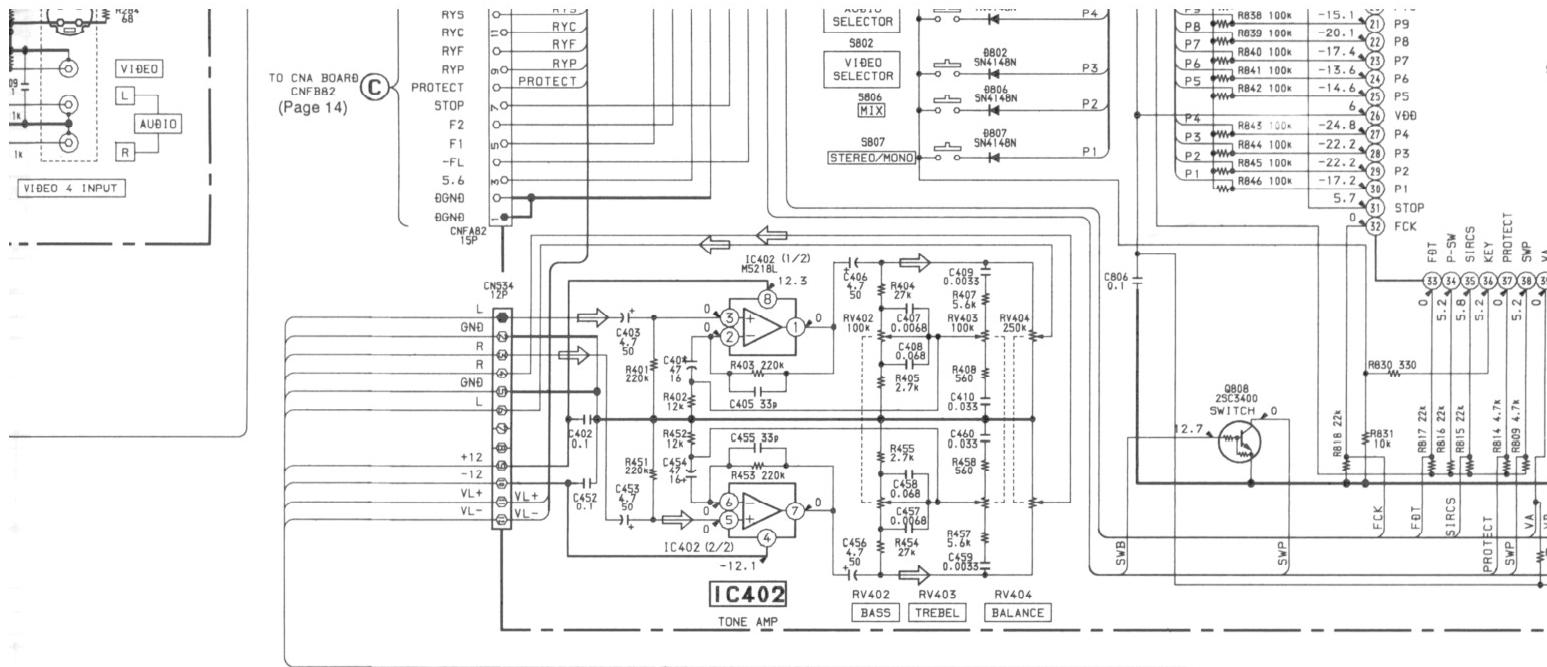




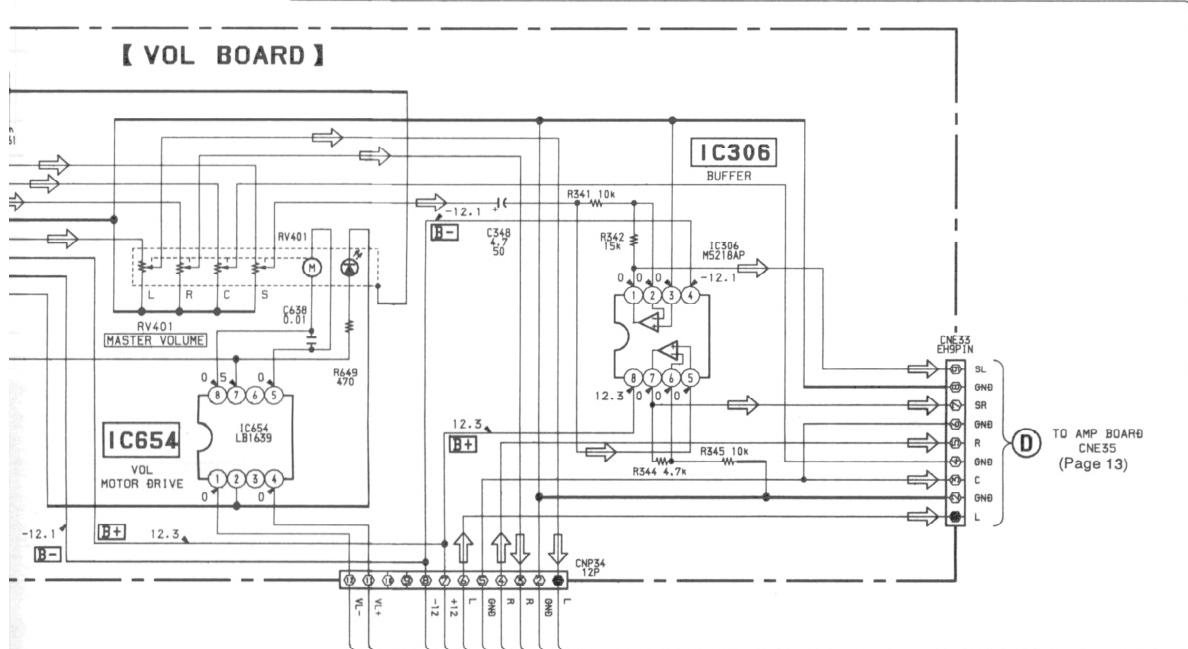


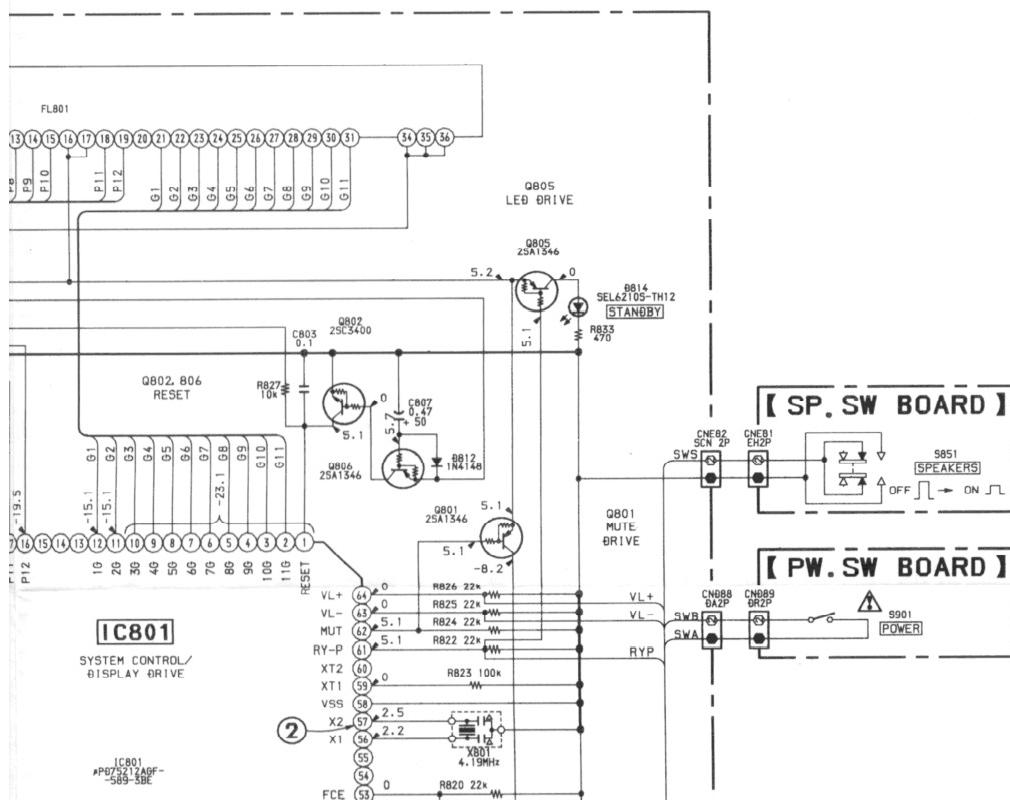






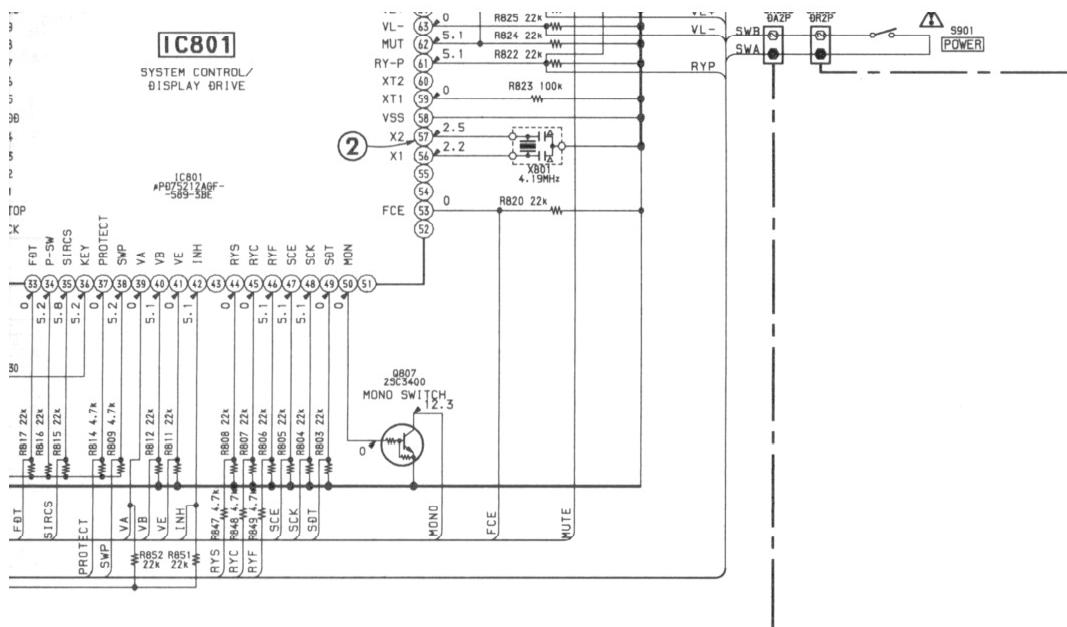
【 VOL BOARD 】



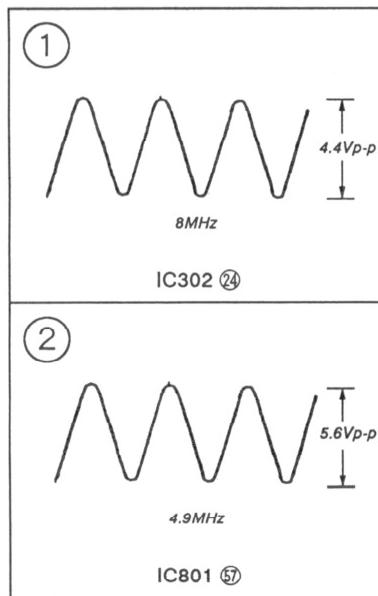


# IC801

SYSTEM CONTROL/  
DISPLAY DRIVE



## • WAVEFORMS



## Note :

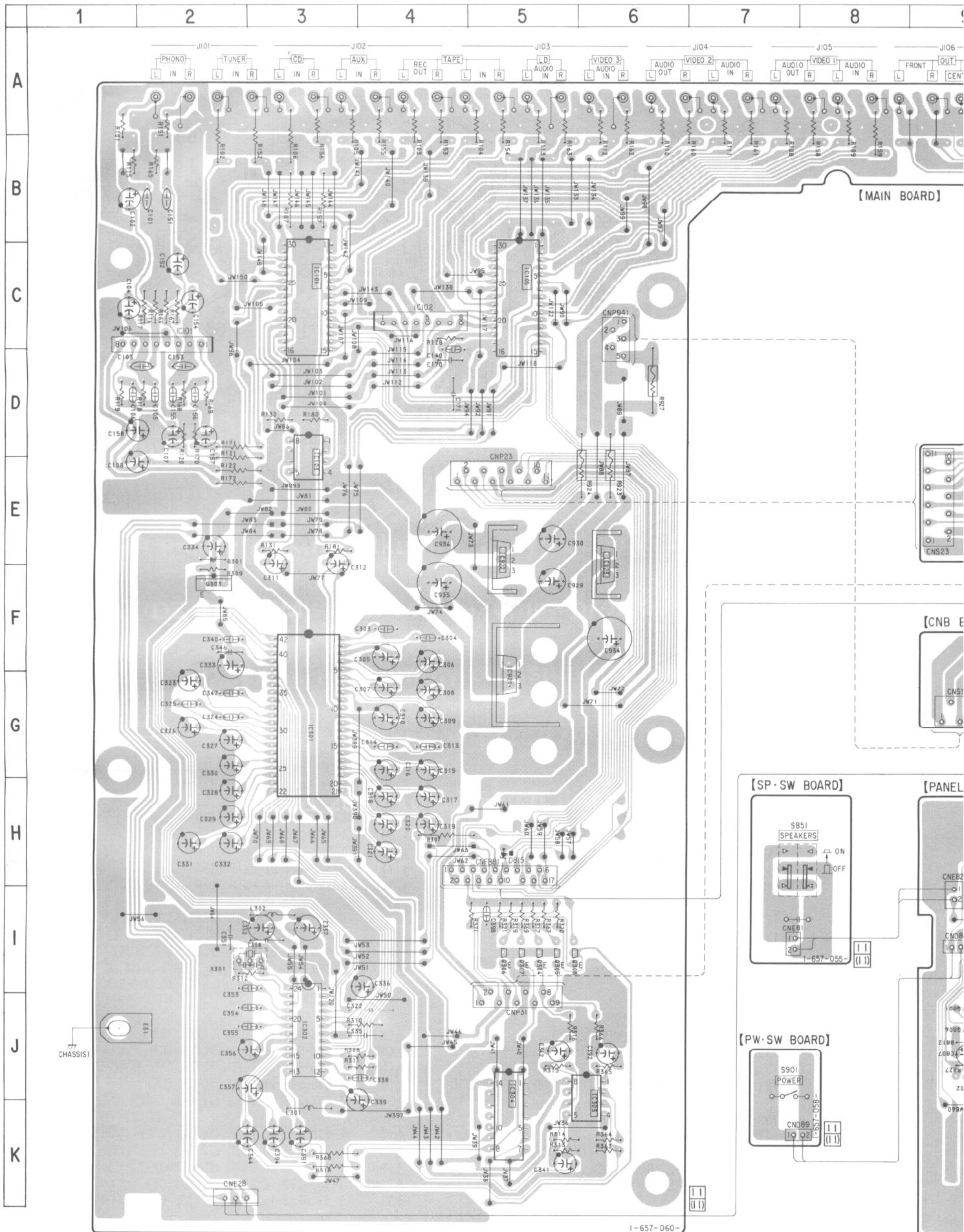
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- % : indicates tolerance.
- $\Delta$  : internal component.
- : fusible resistor.

Note : The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

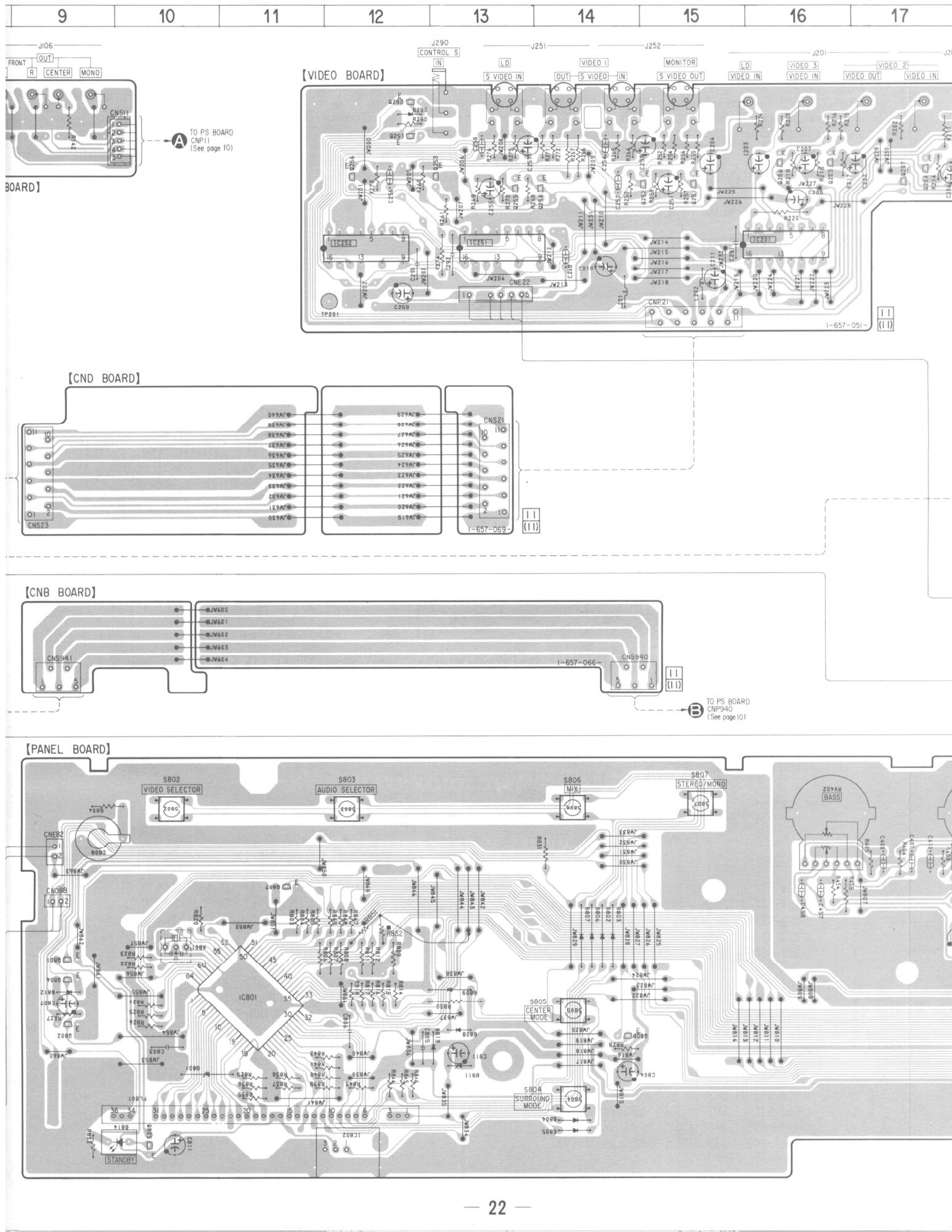
- : B+ Line
- : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.  
no mark : PHONO
- Voltages are taken with a VOM (Input impedance  $10M\Omega$ ).  
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.

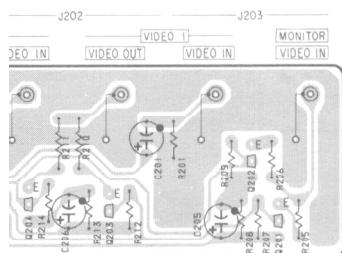


### **3-5. PRINTED WIRING BOARDS-2**

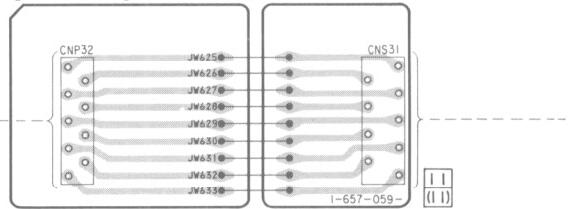


02

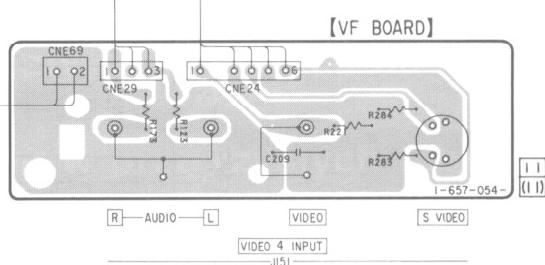




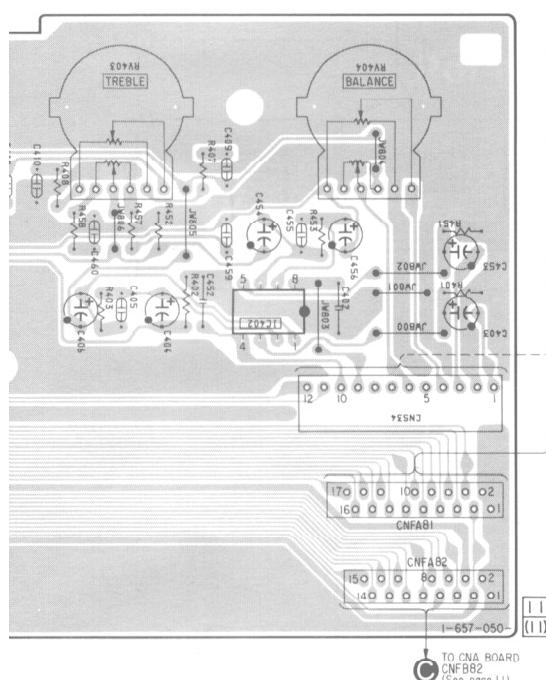
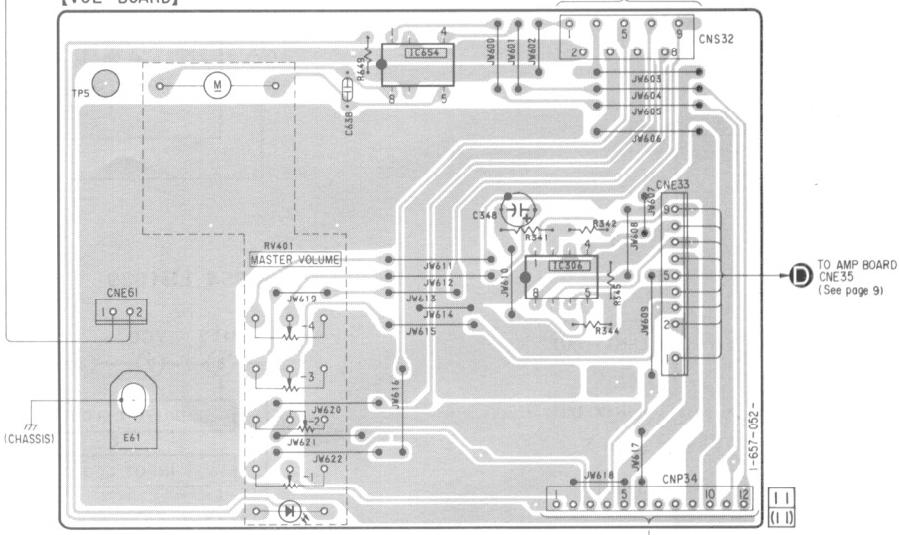
[CNL BOARD]



[VF BOARD]



[VOL BOARD]



## ● SEMICONDUCTOR LOCATION

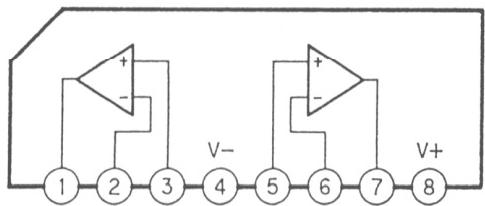
Ref. No.	Location	Ref. No.	Location
D290	A - 12	IC801	J - 11
D301	E - 2	IC802	K - 12
D801	K - 10	IC921	F - 5
D802	I - 14	IC922	E - 5
D803	I - 14	IC923	F - 6
D804	K - 14		
D805	K - 14	Q201	B - 19
D806	I - 14	Q202	B - 19
D807	I - 14	Q203	B - 18
D808	J - 13	Q204	B - 17
		Q205	B - 16
D809	J - 13		
D812	J - 9	Q206	B - 16
D813	J - 13	Q207	B - 17
D814	K - 10	Q251	B - 15
D815	H - 5	Q252	B - 15
		Q253	B - 13
D911	K - 13		
		Q254	B - 14
		Q255	B - 13
IC101	C - 2	Q256	B - 12
IC102	C - 4	Q290	A - 12
IC103	E - 3	Q291	B - 12
IC104	C - 3		
IC105	C - 5	Q303	F - 2
		Q304	I - 5
IC201	C - 16	Q305	I - 5
IC251	C - 13	Q306	I - 5
IC252	C - 12	Q307	I - 5
IC301	G - 3		
IC302	J - 3	Q308	I - 5
IC303	J - 6		
IC304	J - 5		
IC306	J - 24		
IC402	I - 10		
IC654	I - 23		

## Note:

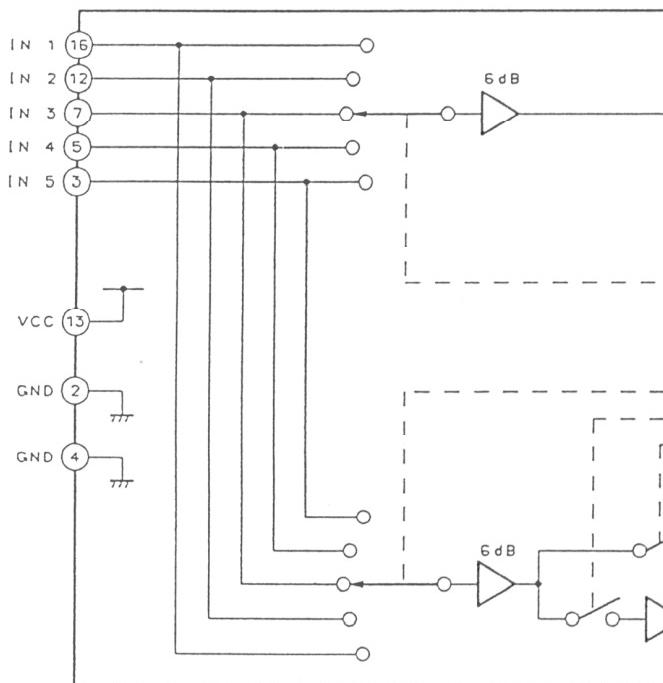
- O— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- : Pattern on the side which is seen.

• IC BLOCK DIAGRAMS

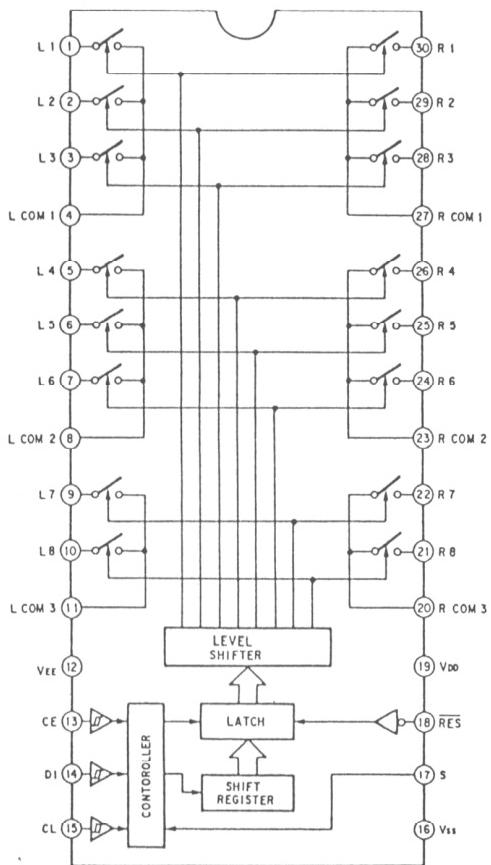
**IC102 M5218AL**



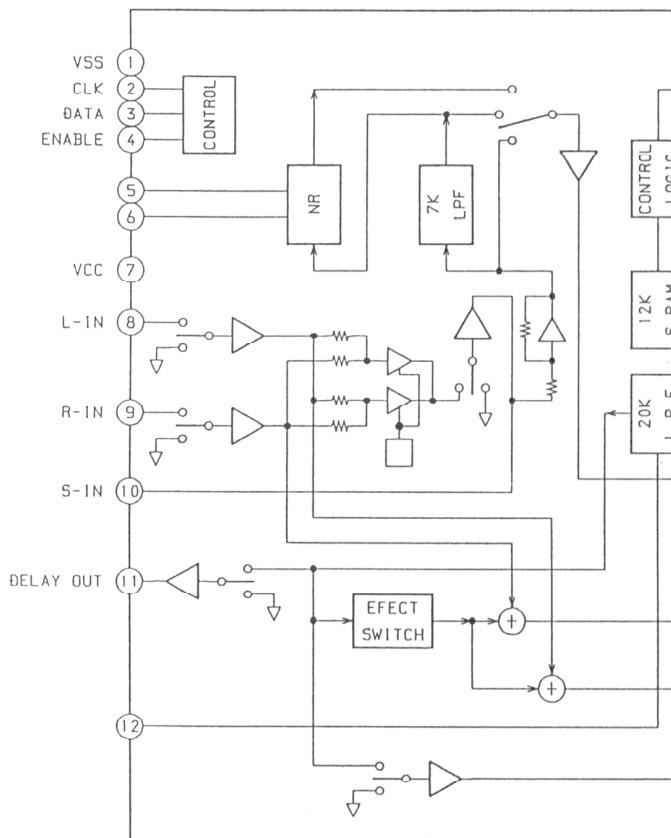
**IC201, 251, 252 SN761200**



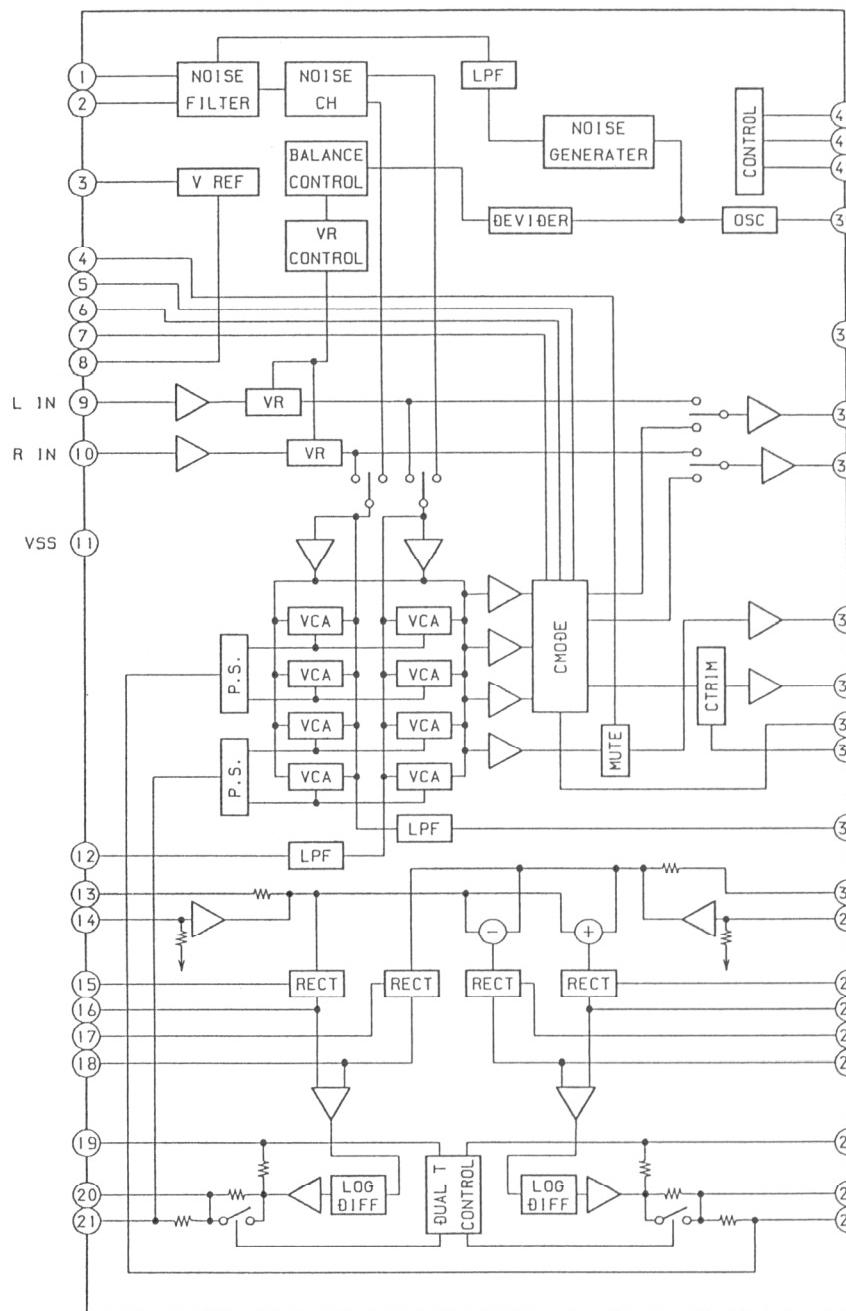
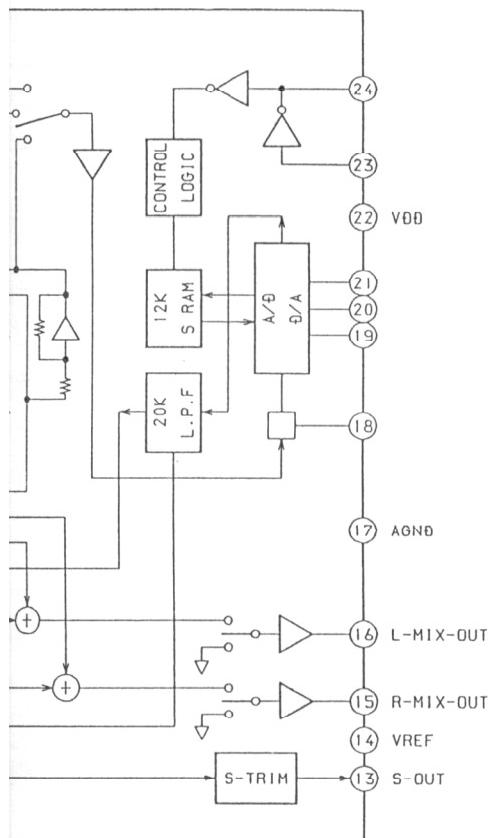
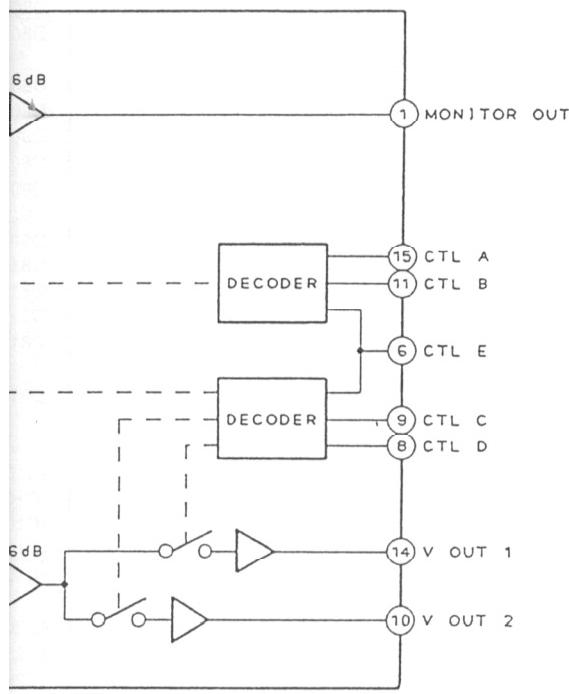
**IC104, 105 LC7822**



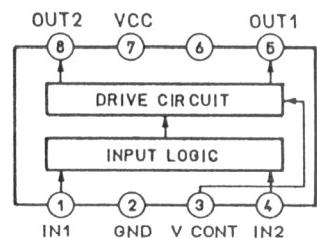
**IC302 LV1011**



**IC301 LA2785**



**IC654 LB1639**



## SECTION 4 EXPLODED VIEWS

### NOTE :

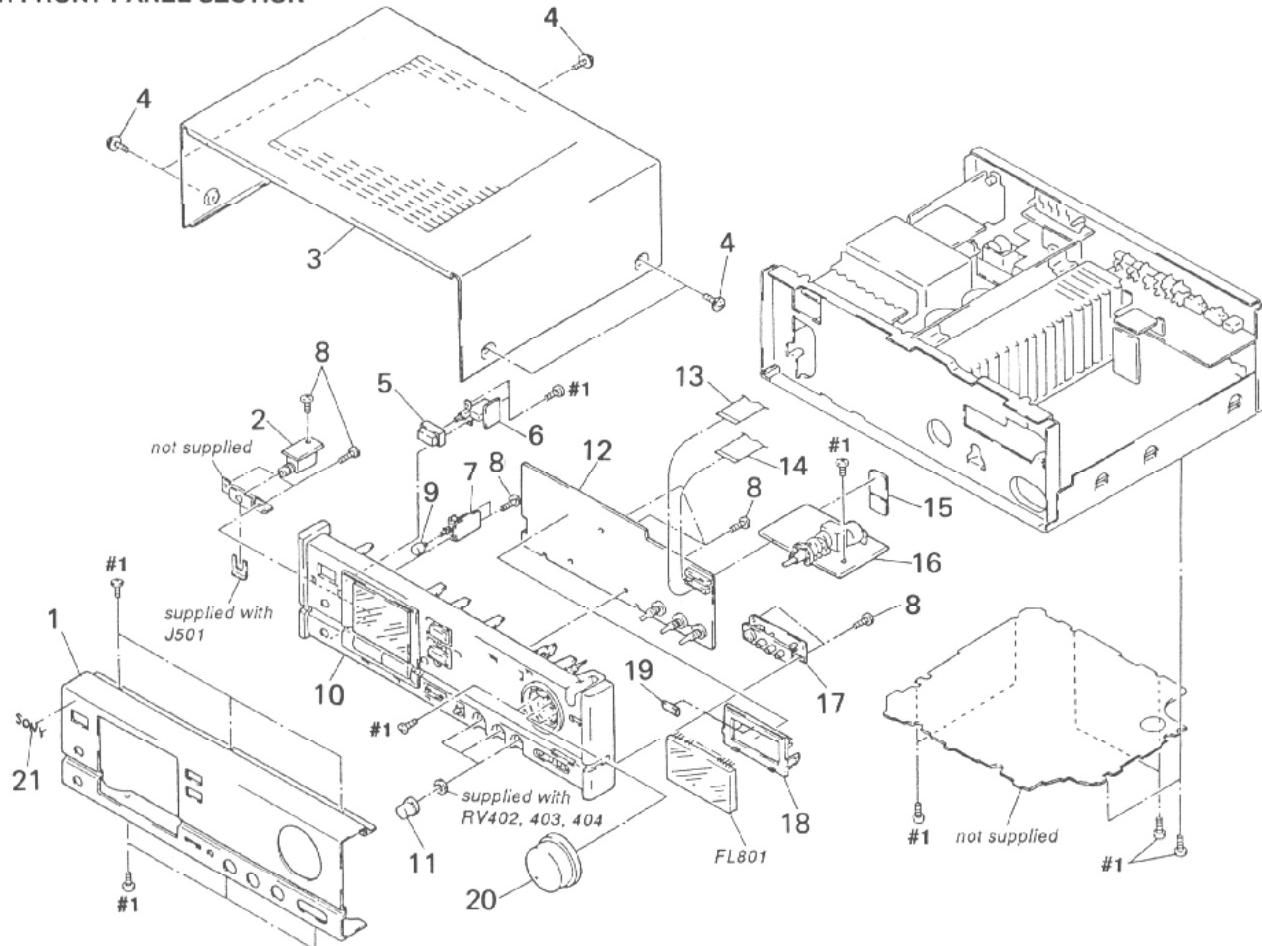
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts Example :  
KNOB, BALANCE (WHITE)....(RED)  
 ↑                      ↑  
 Parts color   Cabinet's color

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

- Abbreviation  
 G : German  
 SP : Singapore  
 CH : Chinese

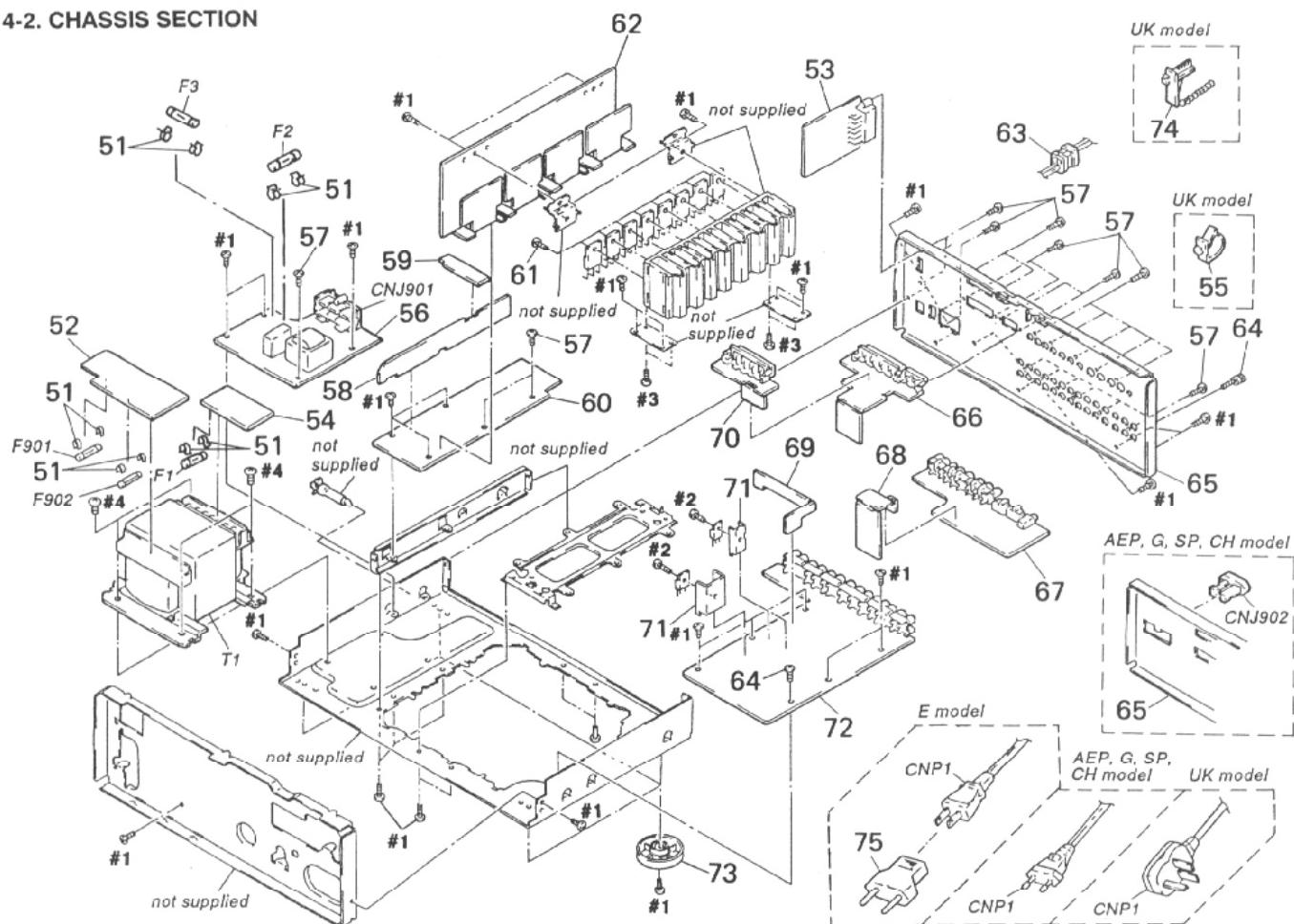
### 4-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-954-972-21	PANEL, FRONT (BLACK) (AEP, UK, G)	
1	4-954-972-31	PANEL, FRONT (GRY) (E, SP, CH)	
* 2	1-657-056-11	HP BOARD	
3	4-924-920-13	CASE (GRY) (E, SP, CH)	
3	4-924-920-71	CASE (BLACK) (AEP, UK, G)	
4	3-704-366-01	SCREW (CASE) (M3×8)	
5	4-917-460-81	KNOB, POWER (BLACK) (AEP, UK, G)	
5	4-917-460-91	KNOB, POWER (GRY) (E, SP, CH)	
* 6	1-657-058-11	PW. SW BOARD	
* 7	1-657-055-11	SP. SW BOARD	
8	4-951-620-01	SCREW (2.6X8), +BVTP	
9	4-954-978-01	BUTTON (10) (BLACK) (AEP, UK, G)	
9	4-954-978-11	BUTTON (10) (GRY) (E, SP, CH)	
10	X-4946-097-2	X-4946-097-2 BASE ASSY, PANEL (AEP, UK, G)	
10	X-4946-100-2	X-4946-100-2 BASE ASSY, PANEL (E, SP, CH)	

Ref. No.	Part No.	Description	Remark
11	4-954-979-01	KNOB (18) (BLACK) (AEP, UK, G)	
11	4-954-979-11	KNOB (18) (GRY) (E, SP, CH)	
* 12	A-4378-427-A	PANEL BOARD, COMPLETE	
13	1-773-644-11	WIRE (FLAT TYPE) (17 CORE)	
14	1-773-623-11	WIRE (FLAT TYPE) (15 CORE)	
* 15	1-657-059-11	CNL BOARD	
* 16	1-657-052-11	VOL BOARD	
* 17	1-657-054-11	VF BOARD	
* 18	4-954-977-01	HOLDER, FL	
* 19	4-955-901-01	CUSHION (FL)	
20	X-4942-974-1	KNOB (50) ASSY (AEP, UK, G)	
20	X-4942-976-1	KNOB (50) ASSY (E, SP, CH)	
21	4-942-568-01	EMBLEM (NO. 5), SONY	
FL801	1-517-440-11	INDICATOR TUBE, FLUORESCENT	

#### 4-2. CHASSIS SECTION



The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 51	1-533-213-31	HOLDER, FUSE	
* 52	1-657-064-11	CNT2 BOARD	
* 53	1-657-057-11	VS BOARD (E)	
* 54	1-657-063-11	CNT1 BOARD	
* 55	4-949-235-01	HOOK (UK)	
* 56	A-4378-436-A	AC BOARD, COMPLETE (AEP, G, SP, CH)	
* 56	A-4378-437-A	AC BOARD, COMPLETE (UK)	
* 56	A-4378-438-A	AC BOARD, COMPLETE (E)	
57	3-704-515-11	SCREW (BV/RING)	
* 58	1-657-062-11	CNA BOARD	
* 59	1-657-365-11	CNP BOARD	
* 60	A-4378-449-A	PS BOARD, COMPLETE	
61	3-905-609-01	SCREW (TRANSISTOR)	
* 62	A-4378-440-A	AMP BOARD, COMPLETE	
* 63	3-703-244-00	BUSHING (2104), CORD (AEP, UK, G, SP, CH)	
* 63	3-703-571-11	BUSHING (S) (4516), CORD (E)	
64	4-947-010-01	SCREW, FEEDER FIXED	
* 65	4-954-970-71	PANEL, BACK (AEP, G, SP, CH)	
* 65	4-954-970-81	PANEL, BACK (UK)	
* 65	4-954-970-91	PANEL, BACK (E)	
* 66	1-657-067-11	SPC BOARD	
* 67	A-4378-428-A	VIDEO BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
* 68	1-657-069-11	CND BOARD	
* 69	1-657-066-11	CNB BOARD	
* 70	1-657-068-11	SPF BOARD	
* 71	3-309-144-21	HEAT SINK	
* 72	A-4378-447-A	MAJN BOARD, COMPLETE	
73	4-956-885-11	FOOT (F58175S2W) (BLACK) (AEP, UK, G)	
73	4-956-885-21	FOOT (F58175S2W) (GRY) (E, SP, CH)	
74	4-956-370-02	BAND, PLUG FIXED (UK)	
△75	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
△CNJ901	1-540-043-21	OUTLET, AC (AC OUTLET) (NONPOLAR) (3P) (E)	
△CNJ902	1-526-794-11	OUTLET, AC (AEP, G, SP, CH)	
△CNP1	1-558-943-41	CORD, POWER (E)	
△CNP1	1-575-651-21	CORD, POWER (AEP, G, SP, CH)	
△CNP1	1-696-586-11	CORD, POWER (UK)	
△F1	1-532-286-00	FUSE (T2.5AL/250V)	
△F2	1-532-286-00	FUSE (T2.5AL/250V) (AEP, G, SP, CH)	
△F3	1-532-286-00	FUSE (T2.5AL/250V) (E)	
△F901	1-532-299-00	FUSE (T5AL/250V)	
△F902	1-532-299-00	FUSE (T5AL/250V)	
△T1	1-427-982-11	TRANSFORMER, POWER (AEP, UK, G, SP, CH)	
△T1	1-427-983-11	TRANSFORMER, POWER (E)	

## SECTION 5 ELECTRICAL PARTS LIST

AC

### NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL : Metal-film resistor  
METAL OXIDE : Metal oxide-film resistor  
F : nonflammable

● Items marked “ \* ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u :  $\mu$ , for example:  
uA.... :  $\mu$  A...., uPA.... :  $\mu$  PA....  
uPB.... :  $\mu$  PB...., uPC.... :  $\mu$  PC....  
uPD.... :  $\mu$  PD....

● CAPACITORS

uF :  $\mu$  F

● COILS

uH :  $\mu$  H

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

- Abbreviation  
G : German  
SP : Singapore  
CH : Chinese

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4378-436-A	AC BOARD, COMPLETE (AEP, G, SP, CH)		D902	8-719-987-63	DIODE IN4148M	
*	A-4378-437-A	AC BOARD, COMPLETE (UK)		D903-906	8-719-200-02	DIODE 10E2	
*	A-4378-438-A	AC BOARD, COMPLETE (E)	*****	D907	8-719-987-63	DIODE IN4148M	
				D908	8-719-933-41	DIODE HZS6C3L	
		< BASE POST >		D909	8-719-933-41	DIODE HZS6C3L	
* BP901	1-535-139-00	BASE POST 19MM (10MM PITCH) 2P		D910	8-719-010-23	DIODE UZ-3.6BSB	
		< CAPACITOR >				< TERMINAL BOARD >	
$\triangle$ C901	1-161-744-51	CERAMIC	0.01uF 400V	E99	1-537-770-21	TERMINAL BOARD, GROUND	
$\triangle$ C902	1-161-744-51	CERAMIC	0.01uF 400V			< FUSE >	
C903	1-164-096-11	CERAMIC	0.01uF 50V	$\triangle$ F2	1-532-286-00	FUSE (T2.5AL/250V) (AEP, G, SP, CH)	
C904	1-124-557-11	ELECT	1000uF 20% 25V	$\triangle$ F3	1-532-286-00	FUSE (T2.5AL/250V) (E)	
C905	1-124-907-11	ELECT	10uF 20% 50V			< TRANSISTOR >	
C906	1-124-903-11	ELECT	1uF 20% 50V	Q901	8-729-620-05	TRANSISTOR 2SC2603-EF	
C907	1-124-907-11	ELECT	10uF 20% 50V	Q902	8-729-209-15	TRANSISTOR 2SD2012	
C908	1-124-464-11	ELECT	0.22uF 20% 50V	Q903	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C937	1-164-096-11	CERAMIC	0.01uF 50V	Q904	8-729-620-05	TRANSISTOR 2SC2603-EF	
		< JACK >		Q905	8-729-119-76	TRANSISTOR 2SA1175-HFE	
△CNJ901	1-540-043-21	OUTLET, AC (AC OUTLET) (NONPOLAR) (3P)		Q906	8-729-620-05	TRANSISTOR 2SC2603-EF	
		(E)				< RESISTOR >	
		< CONNECTOR >		$\triangle$ R900	1-212-950-00	FUSIBLE 4.7 5% 1/2W F	
		CNP930 1-695-087-11 PIN, CONNECTOR (PC BOARD) 7P		R901	1-249-425-11	CARBON 4.7K 5% 1/4W	
		CNV901 1-774-108-11 PIN, CONNECTOR (PC BOARD)		R902	1-249-396-11	CARBON 18 5% 1/4W	
		CNV902 1-564-321-00 PIN, CONNECTOR 2P		R903	1-249-417-11	CARBON 1K 5% 1/4W	
* CNV909	1-564-321-21	PIN, CONNECTOR 2P (E)		R904	1-249-436-11	CARBON 39K 5% 1/4W	
* CNV910	1-564-321-21	PIN, CONNECTOR 2P (AEP, G, SP, CH)		R905	1-249-429-11	CARBON 10K 5% 1/4W	
		CNV911 1-564-321-00 PIN, CONNECTOR 2P (E)		R906	1-249-426-11	CARBON 5.6K 5% 1/4W	
		< DIODE >		R907	1-249-429-11	CARBON 10K 5% 1/4W	
D901	8-719-987-63	DIODE IN4148M		R908	1-249-426-11	CARBON 5.6K 5% 1/4W	

**AC****AMP**

Ref. No.	Part No.	Description	Remark
R909	1-249-417-11	CARBON	1K 5% 1/4W
R910	1-249-429-11	CARBON	10K 5% 1/4W
R913	1-249-429-11	CARBON	10K 5% 1/4W
R914	1-249-417-11	CARBON	1K 5% 1/4W

&lt; RELAY &gt;

ARY901	1-515-701-11	RELAY
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&lt; TRANSFORMER &gt;

AT901	1-449-071-21	TRANSFORMER, POWER (AEP, UK, G, SP, CH)
AT901	1-448-523-11	TRANSFORMER, POWER (E)

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*	A-4378-440-A	AMP BOARD, COMPLETE
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&lt; BASE POST &gt;

* BP001	1-535-115-00	TERMINAL
* BP501	1-535-115-00	TERMINAL
* BP551	1-535-115-00	TERMINAL

&lt; CAPACITOR &gt;

C001	1-126-963-11	ELECT	4.7uF	20%	50V
C002	1-164-077-11	CERAMIC	220PF	10%	50V
C003	1-110-339-11	MYLAR	220PF	5%	50V
C004	1-124-477-11	ELECT	47uF	20%	25V
C005	1-164-039-11	CERAMIC	3PF	0.25PF	50V
C006	1-124-120-11	ELECT	220uF	20%	25V
C008	1-124-477-11	ELECT	47uF	20%	25V
C009	1-107-597-11	CERAMIC	22PF	10%	500V
C011	1-136-165-00	FILM	0.1uF	5%	50V
C501	1-126-963-11	ELECT	4.7uF	20%	50V
C502	1-164-077-11	CERAMIC	220PF	10%	50V
C503	1-130-471-00	MYLAR	0.001uF	5%	50V
C504	1-124-477-11	ELECT	47uF	20%	25V
C505	1-164-039-11	CERAMIC	3PF	0.25PF	50V
C506	1-124-120-11	ELECT	220uF	20%	25V
C508	1-124-477-11	ELECT	47uF	20%	25V
C509	1-107-597-11	CERAMIC	22PF	10%	500V
C511	1-136-165-00	FILM	0.1uF	5%	50V
C551	1-126-963-11	ELECT	4.7uF	20%	50V
C552	1-164-077-11	CERAMIC	220PF	10%	50V
C553	1-130-471-00	MYLAR	0.001uF	5%	50V
C554	1-124-477-11	ELECT	47uF	20%	25V
C555	1-164-039-11	CERAMIC	3PF	0.25PF	50V
C556	1-124-120-11	ELECT	220uF	20%	25V
C558	1-124-477-11	ELECT	47uF	20%	25V
C559	1-107-597-11	CERAMIC	22PF	10%	500V
C561	1-136-165-00	FILM	0.1uF	5%	50V

Ref. No.	Part No.	Description	Remark
C601	1-126-963-11	ELECT	4.7uF 20% 50V
C602	1-162-282-31	CERAMIC	100PF 10% 50V
C603	1-162-282-31	CERAMIC	100PF 10% 50V
C604	1-162-191-31	CERAMIC	2.2PF 10% 50V
C605	1-124-443-00	ELECT	100uF 20% 10V

C606	1-136-163-00	FILM	0.068uF 5% 50V
C607	1-136-163-00	FILM	0.068uF 5% 50V
C651	1-126-963-11	ELECT	4.7uF 20% 50V
C652	1-162-282-31	CERAMIC	100PF 10% 50V
C653	1-162-282-31	CERAMIC	100PF 10% 50V

C654	1-162-191-31	CERAMIC	2.2PF 10% 50V
C655	1-124-443-00	ELECT	100uF 20% 10V
C656	1-136-163-00	FILM	0.068uF 5% 50V
C657	1-136-163-00	FILM	0.068uF 5% 50V

&lt; CONNECTOR &gt;

CNE35	1-691-771-11	PLUG (MICRO CONNECTOR) 9P
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* CNS51-54	1-750-533-11	SOCKET 6P
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&lt; DIODE &gt;

D001	8-719-002-83	DIODE	US1090M-TP
D002	8-719-933-35	DIODE	HZS6A3L
D008	8-719-002-83	DIODE	US1090M-TP
D501	8-719-002-83	DIODE	US1090M-TP
D502	8-719-933-35	DIODE	HZS6A3L

D508	8-719-002-83	DIODE	US1090M-TP
D551	8-719-002-83	DIODE	US1090M-TP
D552	8-719-933-35	DIODE	HZS6A3L
D558	8-719-002-83	DIODE	US1090M-TP

&lt; IC &gt;

IC601	8-759-085-89	IC	LM3875-S
IC651	8-759-085-89	IC	LM3875-S

&lt; COIL &gt;

* L601	1-420-872-00	COIL, AIR-CORE
* L651	1-420-872-00	COIL, AIR-CORE

&lt; TRANSISTOR &gt;

Q001	8-729-620-18	TRANSISTOR	2SA979-FG
Q002	8-729-140-82	TRANSISTOR	2SA988-PAFAEA
Q003	8-729-119-79	TRANSISTOR	2SC2785-FEK
Q004	8-729-201-56	TRANSISTOR	2SK246-GR2
Q005	8-729-119-79	TRANSISTOR	2SC2785-FEK
Q006	8-729-802-71	TRANSISTOR	2SA1407-D
Q007	8-729-805-05	TRANSISTOR	2SC3601-E
Q008	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q009	8-729-141-30	TRANSISTOR	2SC3623A-LK

The components identified by mark or dotted line with mark are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q011	8-729-020-52	TRANSISTOR	2SD2439-OPY	AR021	1-212-857-00	FUSIBLE	10 5% 1/4W F
Q013	8-729-020-48	TRANSISTOR	2SB1588-OPY	AR022	1-239-912-21	ENCAPSULATED COMPONENT	0.22
Q015	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R025	1-249-425-11	CARBON	4.7K 5% 1/4W
Q501	8-729-620-18	TRANSISTOR	2SA979-FG	R027	1-249-421-11	CARBON	2.2K 5% 1/4W
Q502	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R029	1-249-431-11	CARBON	15K 5% 1/4W
Q503	8-729-119-79	TRANSISTOR	2SC2785-FEK	R501	1-249-417-11	CARBON	1K 5% 1/4W
Q504	8-729-201-56	TRANSISTOR	2SK246-GR2	R502	1-249-435-11	CARBON	33K 5% 1/4W
Q505	8-729-119-79	TRANSISTOR	2SC2785-FEK	R503	1-249-407-11	CARBON	150 5% 1/4W
Q506	8-729-802-71	TRANSISTOR	2SA1407-D	AR504	1-212-889-00	FUSIBLE	220 5% 1/4W F
Q507	8-729-805-05	TRANSISTOR	2SC3601-E	AR505	1-212-889-00	FUSIBLE	220 5% 1/4W F
Q508	8-729-119-76	TRANSISTOR	2SA1175-HFE	R506	1-249-421-11	CARBON	2.2K 5% 1/4W
Q509	8-729-141-30	TRANSISTOR	2SC3623A-LK	R507	1-249-429-11	CARBON	10K 5% 1/4W
Q511	8-729-020-52	TRANSISTOR	2SD2439-OPY	R508	1-249-435-11	CARBON	33K 5% 1/4W
Q513	8-729-020-48	TRANSISTOR	2SB1588-OPY	R509	1-249-433-11	CARBON	22K 5% 1/4W
Q515	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R510	1-247-765-11	CARBON	33K 5% 1/2W
Q551	8-729-620-18	TRANSISTOR	2SA979-FG	R511	1-247-758-11	CARBON	3.3K 5% 1/2W
Q552	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R512	1-249-411-11	CARBON	330 5% 1/4W
Q553	8-729-119-79	TRANSISTOR	2SC2785-FEK	R513	1-249-431-11	CARBON	15K 5% 1/4W
Q554	8-729-201-56	TRANSISTOR	2SK246-GR2	AR514	1-212-865-00	FUSIBLE	22 5% 1/4W F
Q555	8-729-119-79	TRANSISTOR	2SC2785-FEK	AR515	1-212-865-00	FUSIBLE	22 5% 1/4W F
Q556	8-729-802-71	TRANSISTOR	2SA1407-D	R516	1-249-439-11	CARBON	68K 5% 1/4W
Q557	8-729-805-05	TRANSISTOR	2SC3601-E	R517	1-249-421-11	CARBON	2.2K 5% 1/4W
Q558	8-729-119-76	TRANSISTOR	2SA1175-HFE	R518	1-249-414-11	CARBON	560 5% 1/4W
Q559	8-729-141-30	TRANSISTOR	2SC3623A-LK	R519	1-249-431-11	CARBON	15K 5% 1/4W
Q561	8-729-020-52	TRANSISTOR	2SD2439-OPY	AR520	1-212-857-00	FUSIBLE	10 5% 1/4W F
Q563	8-729-020-48	TRANSISTOR	2SB1588-OPY	AR521	1-212-857-00	FUSIBLE	10 5% 1/4W F
Q565	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	AR522	1-239-912-21	ENCAPSULATED COMPONENT	0.22
< RESISTOR >							
R001	1-249-417-11	CARBON	1K 5% 1/4W	R551	1-249-417-11	CARBON	1K 5% 1/4W
R002	1-249-437-11	CARBON	47K 5% 1/4W	R552	1-249-435-11	CARBON	33K 5% 1/4W
R003	1-249-413-11	CARBON	470 5% 1/4W	R553	1-249-407-11	CARBON	150 5% 1/4W
AR004	1-212-889-00	FUSIBLE	220 5% 1/4W F	AR554	1-212-889-00	FUSIBLE	220 5% 1/4W F
AR005	1-212-889-00	FUSIBLE	220 5% 1/4W F	AR555	1-212-889-00	FUSIBLE	220 5% 1/4W F
R006	1-249-421-11	CARBON	2.2K 5% 1/4W	R556	1-249-421-11	CARBON	2.2K 5% 1/4W
R007	1-249-429-11	CARBON	10K 5% 1/4W	R557	1-249-429-11	CARBON	10K 5% 1/4W
R008	1-249-435-11	CARBON	33K 5% 1/4W	R558	1-249-435-11	CARBON	33K 5% 1/4W
R009	1-249-433-11	CARBON	22K 5% 1/4W	R559	1-249-433-11	CARBON	22K 5% 1/4W
R010	1-249-492-11	CARBON	47K 5% 1/2W	R560	1-247-765-11	CARBON	33K 5% 1/2W
R011	1-247-747-11	CARBON	470 5% 1/2W	R561	1-247-758-11	CARBON	3.3K 5% 1/2W
R012	1-249-411-11	CARBON	330 5% 1/4W	R562	1-249-411-11	CARBON	330 5% 1/4W
R013	1-249-431-11	CARBON	15K 5% 1/4W	R563	1-249-431-11	CARBON	15K 5% 1/4W
AR014	1-212-865-00	FUSIBLE	22 5% 1/4W F	AR564	1-212-865-00	FUSIBLE	22 5% 1/4W
AR015	1-212-865-00	FUSIBLE	22 5% 1/4W F	AR565	1-212-865-00	FUSIBLE	22 5% 1/4W
R016	1-249-439-11	CARBON	68K 5% 1/4W	R566	1-249-439-11	CARBON	68K 5% 1/4W
R017	1-249-421-11	CARBON	2.2K 5% 1/4W	R567	1-249-421-11	CARBON	2.2K 5% 1/4W
R018	1-249-414-11	CARBON	560 5% 1/4W	R568	1-249-414-11	CARBON	560 5% 1/4W
R019	1-249-431-11	CARBON	15K 5% 1/4W	R569	1-249-431-11	CARBON	15K 5% 1/4W
AR020	1-212-857-00	FUSIBLE	10 5% 1/4W F				

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Replace only with part number specified.

**AMP CNA CNB CND CNL**

Ref. No.	Part No.	Description	Remark				
▲R570	1-212-857-00	FUSIBLE	10	5%	1/4W F		
▲R571	1-212-857-00	FUSIBLE	10	5%	1/4W F		
▲R572	1-239-912-21	ENCAPSULATED COMPONENT		0.22			
R575	1-249-425-11	CARBON	4.7K	5%	1/4W		
R577	1-249-421-11	CARBON	2.2K	5%	1/4W		
R579	1-249-431-11	CARBON	15K	5%	1/4W		
R601	1-249-417-11	CARBON	1K	5%	1/4W		
R602	1-249-438-11	CARBON	56K	5%	1/4W		
R604	1-249-438-11	CARBON	56K	5%	1/4W		
R605	1-249-414-11	CARBON	560	5%	1/4W		
R607	1-247-727-11	CARBON	10	5%	1/2W		
R608	1-247-727-11	CARBON	10	5%	1/2W		
R651	1-249-417-11	CARBON	1K	5%	1/4W		
R652	1-249-438-11	CARBON	56K	5%	1/4W		
R654	1-249-438-11	CARBON	56K	5%	1/4W		
R655	1-249-414-11	CARBON	560	5%	1/4W		
R657	1-247-727-11	CARBON	10	5%	1/2W		
R658	1-247-727-11	CARBON	10	5%	1/2W		
*****							
*	1-657-062-11	CNA BOARD	*****				
			*****				
		< CAPACITOR >	*****				
C701	1-126-941-11	ELECT	470uF	20%	6.3V		
C702	1-136-165-00	FILM	0.1uF	5%	50V		
		< CONNECTOR >	*****				
*	CNE38	1-564-518-11	PLUG, CONNECTOR 3P	< CONNECTOR >			
CNE925	1-564-517-11	PLUG, CONNECTOR 2P	*****				
CNFB82	1-766-100-11	CONNECTOR, FFC(LIF(NON-ZIF))15P	*****				
CNS71	1-695-092-11	SOCKET, CONNECTOR 7P	*****				
CNS72	1-695-092-11	SOCKET, CONNECTOR 7P	*****				
CNS73	1-750-179-11	SOCKET, CONNECTOR 5P	*****				
CNS931	1-695-092-11	SOCKET, CONNECTOR 7P	*****				
		< DIODE >	*****				
D701-703	8-719-002-83	DIODE	US1090M-TP	< CONNECTOR >			
D704	8-719-200-02	DIODE	10E2	*****			
D710	8-719-987-63	DIODE	1N4148M	*****			
D711	8-719-987-63	DIODE	1N4148M	*****			
D720	8-719-987-63	DIODE	1N4148M	*****			
D721	8-719-987-63	DIODE	1N4148M	*****			
D725	8-719-987-63	DIODE	1N4148M	*****			
D726	8-719-987-63	DIODE	1N4148M	*****			
		< TRANSISTOR >	*****				
Q701	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	*****			

Ref. No.	Part No.	Description	Remark		
Q702	8-729-620-05	TRANSISTOR	2SC2603-EF	*****	
Q703	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA	*****	
Q710	8-729-620-05	TRANSISTOR	2SC2603-EF	*****	
Q715	8-729-620-05	TRANSISTOR	2SC2603-EF	*****	
Q720	8-729-620-05	TRANSISTOR	2SC2603-EF	*****	
Q725	8-729-620-05	TRANSISTOR	2SC2603-EF	*****	
		< RESISTOR >	*****		
R701	1-249-429-11	CARBON	10K	5%	1/4W
R702	1-249-427-11	CARBON	6.8K	5%	1/4W
R703	1-249-435-11	CARBON	33K	5%	1/4W
R710	1-249-425-11	CARBON	4.7K	5%	1/4W
R711	1-249-429-11	CARBON	10K	5%	1/4W
R715	1-249-425-11	CARBON	4.7K	5%	1/4W
R716	1-249-429-11	CARBON	10K	5%	1/4W
R718	1-247-754-11	CARBON	1.5K	5%	1/2W
R721	1-249-429-11	CARBON	10K	5%	1/4W
R726	1-249-429-11	CARBON	10K	5%	1/4W
R728	1-247-743-11	CARBON	220	5%	1/2W
*	1-657-066-11	CNB BOARD	*****		
			*****		
		< CONNECTOR >	*****		
CNS940	1-750-179-11	SOCKET, CONNECTOR 5P	*****		
CNS941	1-750-179-11	SOCKET, CONNECTOR 5P	*****		
*	1-657-069-11	CND BOARD	*****		
			*****		
		< CONNECTOR >	*****		
CNS21	1-695-094-11	SOCKET, CONNECTOR 11P	*****		
CNS23	1-695-094-11	SOCKET, CONNECTOR 11P	*****		
*	1-657-059-11	CNL BOARD	*****		
			*****		
		< CONNECTOR >	*****		
CNP32	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P	*****		
CNS31	1-695-093-11	SOCKET, CONNECTOR 9P	*****		

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-657-365-11	CNP BOARD	***** < CONNECTOR >	C101	1-164-072-11	CERAMIC	120PF 5% 50V
			CNP931 1-695-087-11 PIN, CONNECTOR (PC BOARD) 7P CNS930 1-695-092-11 SOCKET, CONNECTOR 7P	C102	1-124-907-11	ELECT	10uF 20% 50V
			*****	C103	1-164-070-11	CERAMIC	100PF 5% 50V
*	1-657-063-11	CNT1 BOARD	***** < CONNECTOR >	C104	1-104-664-11	ELECT	47uF 20% 16V
			CNV903 1-690-123-21 REED (WITH CONNECTOR) (2 CORE) CNV912 1-568-106-11 PIN, CONNECTOR 4P (E)	C105	1-130-480-00	MYLAR	0.0056uF 5% 50V
			*****	C106	1-130-473-00	MYLAR	0.0015uF 5% 50V
*	1-657-064-11	CNT2 BOARD	***** < CONNECTOR >	C107	1-124-903-11	ELECT	1uF 20% 50V
			CNE922 1-564-505-11 PLUG, CONNECTOR 2P * CNV920 1-564-104-00 PIN, CONNECTOR (B3P-VH) 3P * CNV921 1-564-242-00 PIN, CONNECTOR 5P	C108	1-124-910-11	ELECT	47uF 20% 50V
			*****	C140	1-136-153-00	FILM	0.01uF 5% 50V
			< FUSE >	C151	1-164-072-11	CERAMIC	120PF 5% 50V
△F1	1-532-286-00	FUSE (T2.5AL/250V)	*****	C152	1-124-907-11	ELECT	10uF 20% 50V
				C153	1-164-070-11	CERAMIC	100PF 5% 50V
*	1-657-064-11	CNT2 BOARD	***** < CONNECTOR >	C154	1-104-664-11	ELECT	47uF 20% 16V
			CNE922 1-564-505-11 PLUG, CONNECTOR 2P * CNV920 1-564-104-00 PIN, CONNECTOR (B3P-VH) 3P * CNV921 1-564-242-00 PIN, CONNECTOR 5P	C155	1-130-480-00	MYLAR	0.0056uF 5% 50V
			*****	C156	1-130-473-00	MYLAR	0.0015uF 5% 50V
			< FUSE >	C157	1-124-903-11	ELECT	1uF 20% 50V
△F901	1-532-299-00	FUSE (T5AL/250V)	*****	C158	1-124-910-11	ELECT	47uF 20% 50V
△F902	1-532-299-00	FUSE (T5AL/250V)	***** < RESISTOR >	C170	1-164-159-11	CERAMIC	0.1uF 50V
				C171	1-164-159-11	CERAMIC	0.1uF 50V
			C303	1-136-157-00	FILM	0.022uF 5% 50V	
			*****	C304	1-136-161-00	FILM	0.047uF 5% 50V
				C305	1-104-666-11	ELECT	220uF 20% 10V
			C306-309	1-124-907-11	ELECT	10uF 20% 50V	
				C310	1-104-666-11	ELECT	220uF 20% 10V
				C311	1-126-963-11	ELECT	4.7uF 20% 50V
			*****	C312	1-126-963-11	ELECT	4.7uF 20% 50V
				C313	1-136-165-00	FILM	0.1uF 5% 50V
				C314	1-136-165-00	FILM	0.1uF 5% 50V
				C315	1-124-902-00	ELECT	0.47uF 20% 50V
				C316	1-126-963-11	ELECT	4.7uF 20% 50V
			*****	C317	1-124-902-00	ELECT	0.47uF 20% 50V
				C318	1-126-963-11	ELECT	4.7uF 20% 50V
				C319	1-124-250-11	ELECT	0.15uF 20% 50V
*	1-657-056-11	HP BOARD	***** < CONNECTOR >	C320	1-126-962-11	ELECT	3.3uF 20% 50V
			CNE39 1-564-506-11 PLUG, CONNECTOR 3P	C321	1-124-250-11	ELECT	0.15uF 20% 50V
			*****	C322	1-162-282-31	CERAMIC	100PF 10% 50V
			< JACK >	C323	1-104-664-11	ELECT	47uF 20% 16V
			J501 1-507-796-71 JACK (PHONES)	C324	1-136-165-00	FILM	0.1uF 5% 50V
			*****	C325	1-136-165-00	FILM	0.1uF 5% 50V
				C326	1-124-902-00	ELECT	0.47uF 20% 50V
				C327	1-126-963-11	ELECT	4.7uF 20% 50V
				C328	1-126-963-11	ELECT	4.7uF 20% 50V
				C329	1-124-250-11	ELECT	0.15uF 20% 50V
				C330	1-124-902-00	ELECT	0.47uF 20% 50V
				C331	1-126-962-11	ELECT	3.3uF 20% 50V
			*****	C332	1-124-250-11	ELECT	0.15uF 20% 50V

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# MAIN

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark
C333	1-104-666-11	ELECT	220uF	20%	10V	IC102	8-759-634-50	IC M5218AL
C334	1-104-664-11	ELECT	47uF	20%	16V	IC103	8-759-634-51	IC M5218AP
C335	1-164-159-11	CERAMIC	0.1uF		50V	IC104	8-759-805-14	IC LC7822
C336	1-124-925-11	ELECT	2.2uF	20%	100V	IC105	8-759-805-14	IC LC7822
C337	1-104-666-11	ELECT	220uF	20%	10V	IC301	8-759-248-74	IC LA2785
C338	1-136-159-00	FILM	0.033uF	5%	50V	IC302	8-759-341-23	IC LV1011
C339	1-124-907-11	ELECT	10uF	20%	50V	IC303	8-759-634-51	IC M5218AP
C340	1-130-469-00	MYLAR	680PF	5%	50V	IC304	8-759-801-01	IC LC4966
C341	1-126-963-11	ELECT	4.7uF	20%	50V	IC921	8-759-231-58	IC TA7812S
C342	1-126-963-11	ELECT	4.7uF	20%	50V	IC922	8-759-245-86	IC TA7912S
C344	1-126-963-11	ELECT	4.7uF	20%	50V	IC923	8-759-231-53	IC TA7805S
C346	1-164-159-11	CERAMIC	0.1uF		50V			< JACK >
C347	1-136-173-00	FILM	0.47uF	5%	50V	J101	1-565-258-11	JACK, PIN 4P (PHONO/TUNER)
C351	1-164-159-11	CERAMIC	0.1uF		50V	J102	1-565-320-61	JACK, PIN 6P (CD/AUX/TAPE OUT)
C352	1-104-666-11	ELECT	220uF	20%	10V	J103	1-565-320-61	JACK, PIN 6P (VIDEO 3/LD/TAPE IN)
C353	1-136-159-00	FILM	0.033uF	5%	50V	J104	1-565-258-11	JACK, PIN 4P (VIDEO 2)
C354	1-130-473-00	MYLAR	0.0015uF	5%	50V	J105	1-565-258-11	JACK, PIN 4P (VIDEO 1)
C355	1-136-159-00	FILM	0.033uF	5%	50V	J106	1-750-595-11	JACK, PIN 4P (OUT)
C356	1-124-903-11	ELECT	1uF	20%	50V			< COIL >
C357	1-104-666-11	ELECT	220uF	20%	10V	L301	1-410-509-11	INDUCTOR 10uH
C358	1-164-159-11	CERAMIC	0.1uF		50V	L302	1-410-509-11	INDUCTOR 10uH
C391	1-126-963-11	ELECT	4.7uF	20%	50V			< TRANSISTOR >
C392	1-126-963-11	ELECT	4.7uF	20%	50V	Q303	8-729-140-96	TRANSISTOR 2SD774-34
C394	1-126-963-11	ELECT	4.7uF	20%	50V	Q304-307	8-729-141-30	TRANSISTOR 2SC3623A-LK
C398	1-136-165-00	FILM	0.1uF	5%	50V	Q308	8-729-900-63	TRANSISTOR DTA124ES
								< CONNECTOR >
* CNE28	1-564-506-11	PLUG, CONNECTOR 3P						< RESISTOR >
CNFB81	1-764-958-11	CONNECTOR, FFC(LIF(NON-ZIF))17P				R101	1-249-411-11	CARBON 330 5% 1/4W
CNP23	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P				R102-105	1-249-417-11	CARBON 1K 5% 1/4W
CNP31	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P				R106	1-249-421-11	CARBON 2.2K 5% 1/4W
CNP941	1-750-180-11	PIN, CONNECTOR (PC BOARD) 5P				R107	1-249-429-11	CARBON 10K 5% 1/4W
						R108-113	1-249-417-11	CARBON 1K 5% 1/4W
* CNS11	1-691-746-11	CONNECTOR, BOARD TO BOARD 5P				R115	1-249-441-11	CARBON 100K 5% 1/4W
						R116	1-249-441-11	CARBON 100K 5% 1/4W
D301	8-719-001-30	DIODE UZL-9H3				R117	1-249-416-11	CARBON 820 5% 1/4W
D815	8-719-985-41	DIODE HZS2CLL				R118	1-247-897-11	CARBON 560K 5% 1/4W
						R119	1-249-437-11	CARBON 47K 5% 1/4W
						R120	1-249-441-11	CARBON 100K 5% 1/4W
						R121	1-249-409-11	CARBON 220 5% 1/4W
E31	1-537-770-21	TERMINAL BOARD, GROUND				R122	1-249-409-11	CARBON 220 5% 1/4W
						R128	1-249-425-11	CARBON 4.7K 5% 1/4W
						R130	1-249-437-11	CARBON 47K 5% 1/4W
IC101	8-759-184-02	IC NJM2068L-D						



**PANEL** **PS**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark																																																																																																																																																																																																																																																																																																																								
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IC402	8-759-634-51	IC M5218AP		R835-846	1-249-441-11	CARBON	100K 5% 1/4W																																																																																																																																																																																																																																																																																																																								
IC801	8-759-343-05	IC uPD75212-SOX2168		R847-849	1-249-425-11	CARBON	4.7K 5% 1/4W																																																																																																																																																																																																																																																																																																																								
IC802	8-749-923-11	IC GPIU58XB		R851	1-249-433-11	CARBON	22K 5% 1/4W																																																																																																																																																																																																																																																																																																																								
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Q801	8-729-900-63	TRANSISTOR DTA124ES		R852	1-249-433-11	CARBON	22K 5% 1/4W																																																																																																																																																																																																																																																																																																																								
Q802	8-729-900-36	TRANSISTOR DTC124ES		< VARIABLE RESISTOR >																																																																																																																																																																																																																																																																																																																											
Q805	8-729-900-63	TRANSISTOR DTA124ES		Q806	8-729-900-63	TRANSISTOR DTA124ES		RV402	1-238-157-11	RES, VAR, CARBON 100K/100K (BASS)		Q807	8-729-900-36	TRANSISTOR DTC124ES		RV403	1-238-157-11	RFS, VAR, CARBON 100K/100K (TREBLE)		Q808	8-729-900-36	TRANSISTOR DTC124ES		RV404	1-238-156-11	RES, VAR, CARBON 250K/250K (BALANCE)		< RESISTOR >								R401	1-247-887-00	CARBON 220K 5% 1/4W		< SWITCH >								R402	1-249-430-11	CARBON 12K 5% 1/4W		S802	1-554-303-21	SWITCH, TACTILE (VIDEO SELECTOR)		R403	1-247-887-00	CARBON 220K 5% 1/4W		S803	1-554-303-21	SWITCH, TACTILE (AUDIO SELECTOR)		R404	1-249-434-11	CARBON 27K 5% 1/4W		S804	1-554-303-21	SWITCH, TACTILE (SURROUND MODE)		R405	1-249-422-11	CARBON 2.7K 5% 1/4W		S805	1-554-303-21	SWITCH, TACTILE (CENTER MODE)		R407	1-249-426-11	CARBON 5.6K 5% 1/4W		S806	1-554-303-21	SWITCH, TACTILE (MIX)		R408	1-249-414-11	CARBON 560 5% 1/4W		S807	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)		R451	1-247-887-00	CARBON 220K 5% 1/4W		< VIBRATOR >								R452	1-249-430-11	CARBON 12K 5% 1/4W		X801	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)		R453	1-247-887-00	CARBON 220K 5% 1/4W		*****								R454	1-249-434-11	CARBON 27K 5% 1/4W		* A-4378-449-A PS BOARD, COMPLETE				R455	1-249-422-11	CARBON 2.7K 5% 1/4W		*****								R457	1-249-426-11	CARBON 5.6K 5% 1/4W		< CAPACITOR >								R458	1-249-414-11	CARBON 560 5% 1/4W		C012	1-136-163-00	FILM 0.068uF 5% 50V		R803-808	1-249-433-11	CARBON 22K 5% 1/4W		C013	1-136-163-00	FILM 0.068uF 5% 50V		R809	1-249-425-11	CARBON 4.7K 5% 1/4W		C512	1-136-163-00	FILM 0.068uF 5% 50V		R811	1-249-433-11	CARBON 22K 5% 1/4W		C513	1-136-163-00	FILM 0.068uF 5% 50V		R812	1-249-433-11	CARBON 22K 5% 1/4W		C562	1-136-163-00	FILM 0.068uF 5% 50V		R814	1-249-425-11	CARBON 4.7K 5% 1/4W		C563	1-136-163-00	FILM 0.068uF 5% 50V		R815-818	1-249-433-11	CARBON 22K 5% 1/4W		C921	1-106-220-00	MYLAR 0.1uF 5% 100V			1-249-433-11	CARBON 22K 5% 1/4W		C922	1-111-263-11	ELECT 10000uF 20% 56V		R820	1-249-433-11	CARBON 22K 5% 1/4W		C923	1-111-263-11	ELECT 10000uF 20% 56V		R822	1-249-433-11	CARBON 22K 5% 1/4W		C924	1-124-910-11	ELECT 47uF 20% 50V		R823	1-249-441-11	CARBON 100K 5% 1/4W		C925	1-124-910-11	ELECT 47uF 20% 50V		R824-825	1-249-433-11	CARBON 22K 5% 1/4W		C926	1-106-220-00	MYLAR 0.1uF 5% 100V			1-249-433-11	CARBON 22K 5% 1/4W		C927	1-126-413-11	ELECT 3300uF 20% 35V		R827	1-249-429-11	CARBON 10K 5% 1/4W		C928	1-126-413-11	ELECT 3300uF 20% 35V		R828	1-249-433-11	CARBON 22K 5% 1/4W		C933	1-126-941-11	ELECT 470uF 20% 16V		R829	1-249-431-11	CARBON 15K 5% 1/4W		C971	1-106-220-00	MYLAR 0.1uF 5% 100V		R830	1-249-411-11	CARBON 330 5% 1/4W		C972	1-124-920-11	ELECT 330uF 20% 63V		R831	1-249-429-11	CARBON 10K 5% 1/4W		C973	1-124-920-11	ELECT 330uF 20% 63V		R833	1-249-413-11	CARBON 470 5% 1/4W		C976	1-106-220-00	MYLAR 0.1uF 5% 100V		R834	1-247-807-31	CARBON 100 5% 1/4W					
Q806	8-729-900-63	TRANSISTOR DTA124ES		RV402	1-238-157-11	RES, VAR, CARBON 100K/100K (BASS)																																																																																																																																																																																																																																																																																																																									
Q807	8-729-900-36	TRANSISTOR DTC124ES		RV403	1-238-157-11	RFS, VAR, CARBON 100K/100K (TREBLE)																																																																																																																																																																																																																																																																																																																									
Q808	8-729-900-36	TRANSISTOR DTC124ES		RV404	1-238-156-11	RES, VAR, CARBON 250K/250K (BALANCE)																																																																																																																																																																																																																																																																																																																									
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R401	1-247-887-00	CARBON 220K 5% 1/4W		< SWITCH >																																																																																																																																																																																																																																																																																																																											
R402	1-249-430-11	CARBON 12K 5% 1/4W		S802	1-554-303-21	SWITCH, TACTILE (VIDEO SELECTOR)																																																																																																																																																																																																																																																																																																																									
R403	1-247-887-00	CARBON 220K 5% 1/4W		S803	1-554-303-21	SWITCH, TACTILE (AUDIO SELECTOR)																																																																																																																																																																																																																																																																																																																									
R404	1-249-434-11	CARBON 27K 5% 1/4W		S804	1-554-303-21	SWITCH, TACTILE (SURROUND MODE)																																																																																																																																																																																																																																																																																																																									
R405	1-249-422-11	CARBON 2.7K 5% 1/4W		S805	1-554-303-21	SWITCH, TACTILE (CENTER MODE)																																																																																																																																																																																																																																																																																																																									
R407	1-249-426-11	CARBON 5.6K 5% 1/4W		S806	1-554-303-21	SWITCH, TACTILE (MIX)																																																																																																																																																																																																																																																																																																																									
R408	1-249-414-11	CARBON 560 5% 1/4W		S807	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)																																																																																																																																																																																																																																																																																																																									
R451	1-247-887-00	CARBON 220K 5% 1/4W		< VIBRATOR >																																																																																																																																																																																																																																																																																																																											
R452	1-249-430-11	CARBON 12K 5% 1/4W		X801	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)																																																																																																																																																																																																																																																																																																																									
R453	1-247-887-00	CARBON 220K 5% 1/4W		*****																																																																																																																																																																																																																																																																																																																											
R454	1-249-434-11	CARBON 27K 5% 1/4W		* A-4378-449-A PS BOARD, COMPLETE																																																																																																																																																																																																																																																																																																																											
R455	1-249-422-11	CARBON 2.7K 5% 1/4W		*****																																																																																																																																																																																																																																																																																																																											
R457	1-249-426-11	CARBON 5.6K 5% 1/4W		< CAPACITOR >																																																																																																																																																																																																																																																																																																																											
R458	1-249-414-11	CARBON 560 5% 1/4W		C012	1-136-163-00	FILM 0.068uF 5% 50V																																																																																																																																																																																																																																																																																																																									
R803-808	1-249-433-11	CARBON 22K 5% 1/4W		C013	1-136-163-00	FILM 0.068uF 5% 50V																																																																																																																																																																																																																																																																																																																									
R809	1-249-425-11	CARBON 4.7K 5% 1/4W		C512	1-136-163-00	FILM 0.068uF 5% 50V																																																																																																																																																																																																																																																																																																																									
R811	1-249-433-11	CARBON 22K 5% 1/4W		C513	1-136-163-00	FILM 0.068uF 5% 50V																																																																																																																																																																																																																																																																																																																									
R812	1-249-433-11	CARBON 22K 5% 1/4W		C562	1-136-163-00	FILM 0.068uF 5% 50V																																																																																																																																																																																																																																																																																																																									
R814	1-249-425-11	CARBON 4.7K 5% 1/4W		C563	1-136-163-00	FILM 0.068uF 5% 50V																																																																																																																																																																																																																																																																																																																									
R815-818	1-249-433-11	CARBON 22K 5% 1/4W		C921	1-106-220-00	MYLAR 0.1uF 5% 100V																																																																																																																																																																																																																																																																																																																									
	1-249-433-11	CARBON 22K 5% 1/4W		C922	1-111-263-11	ELECT 10000uF 20% 56V																																																																																																																																																																																																																																																																																																																									
R820	1-249-433-11	CARBON 22K 5% 1/4W		C923	1-111-263-11	ELECT 10000uF 20% 56V																																																																																																																																																																																																																																																																																																																									
R822	1-249-433-11	CARBON 22K 5% 1/4W		C924	1-124-910-11	ELECT 47uF 20% 50V																																																																																																																																																																																																																																																																																																																									
R823	1-249-441-11	CARBON 100K 5% 1/4W		C925	1-124-910-11	ELECT 47uF 20% 50V																																																																																																																																																																																																																																																																																																																									
R824-825	1-249-433-11	CARBON 22K 5% 1/4W		C926	1-106-220-00	MYLAR 0.1uF 5% 100V																																																																																																																																																																																																																																																																																																																									
	1-249-433-11	CARBON 22K 5% 1/4W		C927	1-126-413-11	ELECT 3300uF 20% 35V																																																																																																																																																																																																																																																																																																																									
R827	1-249-429-11	CARBON 10K 5% 1/4W		C928	1-126-413-11	ELECT 3300uF 20% 35V																																																																																																																																																																																																																																																																																																																									
R828	1-249-433-11	CARBON 22K 5% 1/4W		C933	1-126-941-11	ELECT 470uF 20% 16V																																																																																																																																																																																																																																																																																																																									
R829	1-249-431-11	CARBON 15K 5% 1/4W		C971	1-106-220-00	MYLAR 0.1uF 5% 100V																																																																																																																																																																																																																																																																																																																									
R830	1-249-411-11	CARBON 330 5% 1/4W		C972	1-124-920-11	ELECT 330uF 20% 63V																																																																																																																																																																																																																																																																																																																									
R831	1-249-429-11	CARBON 10K 5% 1/4W		C973	1-124-920-11	ELECT 330uF 20% 63V																																																																																																																																																																																																																																																																																																																									
R833	1-249-413-11	CARBON 470 5% 1/4W		C976	1-106-220-00	MYLAR 0.1uF 5% 100V																																																																																																																																																																																																																																																																																																																									
R834	1-247-807-31	CARBON 100 5% 1/4W																																																																																																																																																																																																																																																																																																																													

**PS** **PW. SW** **SP. SW**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark		
<b>&lt; CONNECTOR &gt;</b>									
* CNP11	1-691-670-11	CONNECTOR, BOARD TO BOARD 5P		R532	1-247-749-11	CARBON	560 5% 1/2W		
* CNP51-54	1-564-976-11	PIN, CONNECTOR 6P		R533	1-249-437-11	CARBON	47K 5% 1/4W		
CNP55	1-770-880-11	PIN, CONNECTOR 10P		R535	1-249-433-11	CARBON	22K 5% 1/4W		
CNP71	1-695-087-11	PIN, CONNECTOR (PC BOARD) 7P		R536	1-249-419-11	CARBON	1.5K 5% 1/4W		
CNP72	1-695-087-11	PIN, CONNECTOR (PC BOARD) 7P		R538	1-249-431-11	CARBON	15K 5% 1/4W		
CNP73	1-750-180-11	PIN, CONNECTOR (PC BOARD) 5P		R580	1-247-727-11	CARBON	10 5% 1/2W		
CNP940	1-750-180-11	PIN, CONNECTOR (PC BOARD) 5P		R581	1-247-727-11	CARBON	10 5% 1/2W		
* CNV923	1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P		R582	1-247-749-11	CARBON	560 5% 1/2W		
* CNV924	1-564-242-00	PIN, CONNECTOR 5P		R583	1-249-437-11	CARBON	47K 5% 1/4W		
<b>&lt; DIODE &gt;</b>									
D712	8-719-987-63	DIODE IN4148M		R584	1-249-431-11	CARBON	15K 5% 1/4W		
D717	8-719-987-63	DIODE IN4148M		R585	1-249-433-11	CARBON	22K 5% 1/4W		
D722	8-719-987-63	DIODE IN4148M		R586	1-249-419-11	CARBON	1.5K 5% 1/4W		
D727	8-719-987-63	DIODE IN4148M		R611	1-249-437-11	CARBON	47K 5% 1/4W		
D920	8-719-302-38	DIODE RBV-602-01		R661	1-249-437-11	CARBON	47K 5% 1/4W		
D921	8-719-200-82	DIODE 11ES2		R704	1-249-417-11	CARBON	1K 5% 1/4W		
D922	8-719-934-15	DIODE HZS24-3L		R713	1-247-743-11	CARBON	220 5% 1/2W		
D923	8-719-200-02	DIODE 10E2		R723	1-247-743-11	CARBON	220 5% 1/2W		
D924	8-719-200-02	DIODE 10E2		R922	1-249-425-11	CARBON	4.7K 5% 1/4W		
D925	8-719-025-03	DIODE RBA-402-SL		△R925	1-247-688-11	CARBON	10 5% 1/4W F		
D927	8-719-200-82	DIODE 11ES2		△R928	1-249-455-11	CARBON	4.7 5% 1/4W F		
D929	8-719-200-82	DIODE 11ES2		△R975	1-247-688-11	CARBON	10 5% 1/4W F		
<b>&lt; RELAY &gt;</b>									
E91	1-537-770-21	TERMINAL BOARD, GROUND		RY001	1-515-920-11	RELAY (24V)			
E92	1-537-770-21	TERMINAL BOARD, GROUND		RY501	1-515-920-11	RELAY (24V)			
<b>&lt; CONNECTOR &gt;</b>									
* CND89	1-564-336-00	PIN, CONNECTOR 2P		RY502	1-515-614-11	RELAY			
<b>&lt; SWITCH &gt;</b>									
Q921	8-729-141-03	TRANSISTOR 2SA733-QP		△S901	1-572-267-51	SWITCH, PUSH (AC POWER)(1 KEY) (POWER)			
<b>&lt; RESISTOR &gt;</b>									
R030	1-247-727-11	CARBON 10 5% 1/2W		* 1-657-055-11	SP. SW BOARD				
R031	1-247-727-11	CARBON 10 5% 1/2W		*****					
R033	1-249-437-11	CARBON 47K 5% 1/4W		<b>&lt; CONNECTOR &gt;</b>					
R034	1-249-421-11	CARBON 2.2K 5% 1/4W		CNE81	1-564-505-11	PLUG, CONNECTOR 2P			
R035	1-249-433-11	CARBON 22K 5% 1/4W		<b>&lt; SWITCH &gt;</b>					
R036	1-249-409-11	CARBON 220 5% 1/4W		S851	1-572-709-11	SWITCH, PUSH (1 KEY) (SPEAKER)			
R037	1-249-421-11	CARBON 2.2K 5% 1/4W		*****					
R530	1-247-727-11	CARBON 10 5% 1/2W		<b>&lt; CONNECTOR &gt;</b>					
R531	1-247-727-11	CARBON 10 5% 1/2W		<b>&lt; SWITCH &gt;</b>					

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

**SPC** **SPF** **VF** **VIDEO**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-657-067-11	SPC BOARD ***** < CONNECTOR >		C205-207	1-124-907-11	ELECT	10uF 20% 50V
CNP56	1-770-481-11	PIN, CONNECTOR 4P		C208	1-124-903-11	ELECT	1uF 20% 50V
* CNS55	1-561-205-11	SOCKET 10P < TERMINAL >		C210	1-104-664-11	ELECT	47uF 20% 16V
TM001	1-536-707-21	TERMINAL BOARD, PUSH 2P (CENTER SPEAKER)		C211	1-104-664-11	ELECT	47uF 20% 16V
TM601	1-537-238-11	TERMINAL BOARD (REAR SPEAKER)	*****	C251	1-124-907-11	ELECT	10uF 20% 50V
*	1-657-068-11	SPF BOARD ***** < CONNECTOR >		C252	1-136-153-00	FILM	0.01uF 5% 50V
CNS56	1-770-569-11	SOCKET 4P < TERMINAL >		C253	1-124-903-11	ELECT	1uF 20% 50V
TM501	1-537-238-11	TERMINAL BOARD (FRONT SPEAKER)	*****	C254	1-136-165-00	FILM	0.1uF 5% 50V
*	1-657-054-11	VF BOARD ***** < CAPACITOR >		C255	1-124-907-11	ELECT	10uF 20% 50V
C209	1-164-159-11	CERAMIC 0.1uF 50V < CONNECTOR >		C256	1-136-153-00	FILM	0.01uF 5% 50V
CNE24	1-691-767-41	PLUG (MICRO CONNECTOR) 5P		C257	1-124-903-11	ELECT	1uF 20% 50V
* CNE29	1-564-506-11	PLUG, CONNECTOR 3P < JACK >		C258	1-136-165-00	FILM	0.1uF 5% 50V
J151	1-537-115-31	TERMINAL BOARD (VIDEO 4 INPUT) < RESISTOR >		C259	1-124-903-11	ELECT	1uF 20% 50V
R123	1-249-417-11	CARBON 1K 5% 1/4W		C260	1-136-165-00	FILM	0.1uF 5% 50V
R173	1-249-417-11	CARBON 1K 5% 1/4W		C291-293	1-164-159-11	CERAMIC	0.1uF 50V
R221	1-249-403-11	CARBON 68 5% 1/4W				< CONNECTOR >	
R283	1-249-403-11	CARBON 68 5% 1/4W		CNE22	1-691-767-41	PLUG (MICRO CONNECTOR) 5P	
R284	1-249-403-11	CARBON 68 5% 1/4W		CNP21	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P	
*	A-4378-428-A	VIDEO BOARD, COMPLETE ***** < CAPACITOR >					
C201-204	1-124-903-11	ELECT 1uF 20% 50V		IC201	8-759-061-95	IC	SN761200
				IC251	8-759-061-95	IC	SN761200
				IC252	8-759-061-95	IC	SN761200
				J201	1-565-351-61	JACK, PIN 3P (LD/VIDEO 3/VIDEO 2 OUT)	
				J202	1-565-319-11	JACK, PIN 2P (VIDEO 2 IN/VIDEO 1 OUT)	
				J203	1-565-319-11	JACK, PIN 2P (VIDEO 1 IN/MONITOR)	
				J251	1-764-676-11	CONNECTOR (ROUND TYPE) (LD S VIDEO IN/VIDEO 1 S VIDEO OUT)	
				J252	1-764-676-11	CONNECTOR (ROUND TYPE) (VIDEO 1 S VIDEO IN/MONITOR S VIDEO OUT)	
				J290	1-566-740-11	JACK (CONTROL S) < COIL >	
				L201	1-410-521-11	INDUCTOR	100uH
				L202	1-410-521-11	INDUCTOR	100uH
				Q201	8-729-620-05	TRANSISTOR	2SC2603-EF
				Q202	8-729-119-76	TRANSISTOR	2SA1175-HFE
				Q203	8-729-620-05	TRANSISTOR	2SC2603-EF

**VIDEO** **VOL** **VS**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark		
Q204	8-729-119-76	TRANSISTOR	2SA1175-HFE	R276	1-249-403-11	CARBON	68 5% 1/4W		
Q205	8-729-620-05	TRANSISTOR	2SC2603-EF	R290	1-249-421-11	CARBON	2.2K 5% 1/4W		
Q206	8-729-119-76	TRANSISTOR	2SA1175-HFE	*****					
Q207	8-729-900-89	TRANSISTOR	DTC144ES	*****					
Q251	8-729-620-05	TRANSISTOR	2SC2603-EF	*	1-657-052-11	VOL BOARD	*****		
Q252	8-729-119-76	TRANSISTOR	2SA1175-HFE			< CAPACITOR >			
Q253	8-729-119-76	TRANSISTOR	2SA1175-HFE	C348	1-126-963-11	ELECT	4.7uF 20%		
Q254	8-729-620-05	TRANSISTOR	2SC2603-EF	C638	1-136-153-00	FILM	0.01uF 5% 50V		
Q255	8-729-119-76	TRANSISTOR	2SA1175-HFE	*****					
Q256	8-729-119-76	TRANSISTOR	2SA1175-HFE	*****					
Q290	8-729-900-80	TRANSISTOR	DTC114ES	< CONNECTOR >					
Q291	8-729-900-61	TRANSISTOR	DTA114ES	CNE33	1-691-771-11	PLUG (MICRO CONNECTOR)	9P		
< RESISTOR >				CNE61	1-564-505-11	PLUG, CONNECTOR	2P		
R201-206				* CNP34	1-560-443-11	PIN, CONNECTOR	12P		
R207	1-249-403-11	CARBON	68 5% 1/4W	CNS32	1-695-093-11	SOCKET, CONNECTOR	9P		
R208	1-249-426-11	CARBON	5.6K 5% 1/4W	< TERMINAL BOARD >					
R209	1-249-419-11	CARBON	1.5K 5% 1/4W	E61	1-537-770-21	TERMINAL BOARD, GROUND			
R210	1-249-430-11	CARBON	12K 5% 1/4W	< IC >					
R211	1-249-403-11	CARBON	68 5% 1/4W	IC306	8-759-634-51	IC	M5218AP		
R212	1-249-426-11	CARBON	5.6K 5% 1/4W	ICG54	8-759-820-62	IC	LB1639		
R213	1-249-419-11	CARBON	1.5K 5% 1/4W	< RESISTOR >					
R214	1-249-430-11	CARBON	12K 5% 1/4W	R341	1-249-429-11	CARBON	10K 5% 1/4W		
R215	1-249-403-11	CARBON	68 5% 1/4W	R342	1-249-431-11	CARBON	15K 5% 1/4W		
R216	1-249-403-11	CARBON	68 5% 1/4W	R344	1-249-425-11	CARBON	4.7K 5% 1/4W		
R217	1-249-426-11	CARBON	5.6K 5% 1/4W	R345	1-249-429-11	CARBON	10K 5% 1/4W		
R218	1-249-419-11	CARBON	1.5K 5% 1/4W	R649	1-249-413-11	CARBON	470 5% 1/4W		
R219	1-249-430-11	CARBON	12K 5% 1/4W	< VARIABLE RESISTOR >					
R220	1-249-409-11	CARBON	220 5% 1/4W	RV401	1-241-563-11	RES, VAR, CARBON	100KX4 (MASTER VOLUME)		
R252	1-249-403-11	CARBON	68 5% 1/4W	*****					
R254	1-249-429-11	CARBON	10K 5% 1/4W	*	1-657-057-11	VS BOARD (E)	*****		
R255	1-249-403-11	CARBON	68 5% 1/4W	< CONNECTOR >					
R256	1-249-403-11	CARBON	68 5% 1/4W	* CNV913	1-564-321-21	PIN, CONNECTOR	2P (E)		
R257	1-249-426-11	CARBON	5.6K 5% 1/4W	CNV914	1-564-321-00	PIN, CONNECTOR	2P (E)		
R258	1-249-419-11	CARBON	1.5K 5% 1/4W	CNV915	1-568-106-11	PIN, CONNECTOR	4P (E)		
R259	1-249-430-11	CARBON	12K 5% 1/4W	< SWITCH >					
R260	1-249-413-11	CARBON	470 5% 1/4W	△S9	1-571-437-11	SWITCH, POWER VOLTAGE CHANGE			
R261	1-247-807-31	CARBON	100 5% 1/4W	(VOLTAGE SELECTOR) (E)					
R264-267	1-249-403-11	CARBON	68 5% 1/4W	*****					
R268	1-249-426-11	CARBON	5.6K 5% 1/4W	The components identified by					
R269	1-249-419-11	CARBON	1.5K 5% 1/4W	mark  or dotted line with mark 					
R270	1-249-430-11	CARBON	12K 5% 1/4W	are critical for safety.					
R271	1-249-403-11	CARBON	68 5% 1/4W	Replace only with part number					
R272	1-249-429-11	CARBON	10K 5% 1/4W	specified.					
R273	1-249-413-11	CARBON	470 5% 1/4W						
R274	1-247-807-31	CARBON	100 5% 1/4W						
R275	1-249-403-11	CARBON	68 5% 1/4W						

The components identified by  
mark  or dotted line with mark   
are critical for safety.  
Replace only with part number  
specified.

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS			
*****			
13	1-773-644-11	WIRE (FLAT TYPE) (17 CORE)	
14	1-773-623-11	WIRE (FLAT TYPE) (15 CORE)	
* 51	1-533-213-31	HOLDER, FUSE	
△CNJ902	1-526-794-11	OUTLET, AC (AEP, G, SP, CH)	
△CNP1	1-558-943-41	CORD, POWER (E)	
△CNP1	1-575-651-21	CORD, POWER (AEP, G, SP, CH)	
△CNP1	1-696-586-11	CORD, POWER (UK)	
△F1	1-532-286-00	FUSE (T2.5AL/250V)	
△F2	1-532-286-00	FUSE (T2.5AL/250V) (AEP, G, SP, CH)	
△F3	1-532-286-00	FUSE (T2.5AL/250V) (E)	
△F901	1-532-299-00	FUSE (T5AL/250V)	
△F902	1-532-299-00	FUSE (T5AL/250V)	
△T1	1-427-982-11	TRANSFORMER, POWER (AEP, UK, G, SP, CH)	
△T1	1-427-983-11	TRANSFORMER, POWER (E)	
*****			
ACCESSORIES & PACKING MATERIALS			
*****			
1-473-199-11		COMMANDER, STANDARD (RM-P590)	
3-681-190-01		SHEET (LARGE), PROTECTION	
3-798-902-11		MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/PORTUGUESE) (AEP, UK)	
3-798-902-21		MANUAL, INSTRUCTION (GERMAN/DUTCH/DUTCH/SWEDISH/ITALIAN) (AEP, G)	
3-798-902-31		MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/CHINESE) (E, SP, CH)	
3-798-902-41		MANUAL, INSTRUCTION (DANISH/FINNISH) (AEP)	
4-925-079-11		COVER (6), BATTERY (FOR RM-P590)	
4-933-001-01		CUSHION	
4-976-234-01		INDIVIDUAL CARTON	
*****			
*****			
<b>HARDWARE LIST</b>			
*****			
#1	7-685-646-79	SCREW +BVTP 3×8 TYPE2 IT-3	
#2	7-685-646-81	SCREW +BVTP 3×8 TYPE2	
#3	7-685-647-79	SCREW +BVTP 3×10 TYPE2 IT-3	
#4	7-682-560-04	SCREW +BVTT 4×6 (S)	

The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.